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T. S. SHEJWALKAR

DEDICATED TO THE MEMORY OF

T. S. SHEJWALKAR

points of conflict between the students and himself, but this did not affect in the least either his views or the innate softness he had for them which was deeply covered by the sharpness of his tongue. Indeed he was often capable of calling a spade two spades, but in silent action or real understanding of others there were few to compare with him.

As a teacher Shejwalkar expected very high standards from his students. He would not tolerate an idler and he insisted on the most rigorous training, so much so that most of the registrants who wished to proceed with research in his department often became discouraged. This would not bend Shejwalkar from his lofty expectations of what qualifications a student should have and he never spared himself or his students. In personal conversations that I had with him on many occasions he would insist that the true characteristic of a learned scholar (= *vidvān*) was already defined in his inimitable manner by the famous lexicographer Amara who equated this term with *vipaścit* (= critic) and *doṣajña* (+ fault-finder!). A scholar should court criticism and thrive on the critical comments of his compeers.

In his personal life Shejwalkar had one major defect: he was loath to put his knowledge to the written test. Even while editing the famous journal *Pragati* it was only on the last day that he would exert himself and write his editorials or special articles. On the other hand he had a marvellous memory and he had read and absorbed historical details from documents which escaped the attention of other well-known scholars. He was a walking encyclopædia on Maratha history and had absolutely an original manner of approaching his subject. He was the first among our historians to lay stress on the geographical aspect of history, as witnessed by a few papers which he contributed, under great pressure, to the *Bulletin of the Deccan College Research Institute.* But the quantum of work that was expected from each member of the faculty left him far behind in the race. When in November 1942 I took over the Directorship of Deccan College from Dr. I. J. S. Taraporewala, one of my problems was how to get Shejwalkar to conform to the standards of planned research which was such a significant part of the Deccan College structure. He was my senior by several years, but I found in him a loyal colleague who submitted himself willingly to the discipline of the college, much more so than others. It was as a result of such an attitude on his part that despite insuperable difficulties it was possible to inaugurate the monograph series of the Deccan College in 1946 with his special study of the Battle of Panipat. He allowed himself to be forced into a frame of mind where it was essential for him to produce this work, even at the risk of the offer his Director made of working as his amanuensis! If there was one fundamental weakness in Shejwalkar it was his inability to write, either in English or in Marathi, and he had to be cajoled into that mood. Few people understood this need in a scholar who had a touch of genius, but whose life had been a succession of shattered dreams.

If there was one thing that characterised Shejwalkar it was his implicit faith in his definition of the scholar. He went out of his way to court criticism; and when

such criticism came from equally trenchant writers he would for all practical purposes assume that he was wronged and people did not appreciate him; but this much I know from my very long contact with him: he would be not so pleased if someone appreciated the merit of his contributions, but while outwardly disturbed by the unkind criticisms of others his inner soul appeared to be pleased with such criticisms, a fact which many people have not so far discovered. Life without criticism would have been intolerable to him, either in regard to himself or in his reaction to others.

Like many other confirmed bachelors Shejwalkar found his life intertwined with his dependants. As long as his mother was alive he looked after her with old-worldly courtesy and regard, and she in turn made his stay in Poona comfortable. But after her death Shejwalkar was dependant on his relations to look after him. It was during the last few years that Shejwalkar was suffering from blood pressure as well as diabetes. He continued to be an Emeritus Professor at the Deccan College until the very last, while he was working on the life of Shivaji, an undertaking for a Bombay publisher. It is indeed a matter of regret that before he could complete his assignment he fell a prey to his twin diseases.

It is a measure of his greatness that Shejwalkar inspired violent criticism on one side and great attachment and appreciation on the other. He had many complaints with regard to the treatment he received in the Deccan College during his tenure there and he openly criticised those who, in his opinion, were responsible for such complaints, but it must be said that he never bore illwill in deeds. Indeed the many silent acts of charity which remain unrecorded must have given the only solace to him in his last days. Under a stern exterior he managed to hide a very tender heart, and it was his sensitivity that would explode in unrestrained criticism in words, never in acts.

It was the most touching experience to me when I visited him in the Jehangir Nursing Home soon after he was admitted there with a cerebral stroke. The moment I entered his room and enquired from his nephew how he was, he asked his nephew, on hearing my voice, whether I had come. He was mostly silent, and probably too ill to recognise people at that time, but he requested me to convey a message to MM. Prof. Datto Vaman Potdar that he would like to see him. Twice I saw him in the Nursing Home before I had to leave Poona on some official work. It was a cruel blow to me personally to read that he had passed away while I was in Baroda and the news reached me there. It was indeed the breaking of the first link which had brought seven of us on the campus of the Deccan College in 1939.

While it is true that Shejwalkar failed to leave a trained scholar behind him to carry on the good work in Maratha History which he had started, and his post at the Deccan College remained unoccupied for a long time, the fault is not entirely his. Scholars have not been drawn to this field since it provides little bread and butter

resources, and the teaching of medieval and modern history has suffered to a considerable extent in our universities. But he has left an indelible impression on those of us who were privileged to work with him at the Deccan College, and despite the varying degrees of reaction which those impressions have elicited, he undeniably enriched the social life of the Deccan College by raising more controversies than any other single member of his group. He had a high opinion of himself, but nevertheless he was clearly aware of his own limitations, and he had infinite capacity to absorb and digest personal invective and trenchant criticism. It would be difficult to find such a colourful personality indeed!

S. M. KATRE.

INDIAN LINGUISTICS – 1964*

P. B. PANDIT

Deccan College, Poona.

Dr. Vasudev Sharan AGARWAL and fellow delegates:

I am very grateful to the authorities of the All India Oriental Conference for electing me the President of the Indian Linguistics section of the 22nd session of the Conference. I deeply appreciate the high honour conferred upon me.

Before I proceed to present the customary review and my comments on the research work in Indian Linguistics I crave your indulgence for my omissions in covering the recently expanded terrain of linguistics in India. The review cannot be presented in three neat partitions: OIA, MIA and NIA, because the current work in Indian Linguistics does not have mere historical orientation; the new linguists in India are occupied with various aspects of linguistics, historical–comparative, descriptive–structural, acoustic, statistical and applied, to cite a few of them. I have, therefore, tried to classify the contributions topicwise.

Comparative and Historical Studies

The study of prehistory of Sanskrit was a major achievement of the pioneers of Indo–European linguistics. But, prehistory of Sanskrit was only one aspect of the study of Sanskrit; the other aspect was study of Sanskrit with reference to its later development as modern languages of India. Professor Turner, in his Nepali Dictionary (1931) laid the foundations of comparative research in Indo–Aryan; now, during 1962–1964, four fascicles of his magnum opus, A Comparative Dictionary of the Indo–Aryan Languages (hereafter referred to as DIAL) have appeared. The last entry of the fourth fasc. is no. 5639 tatas. This is a natural culmination of the brilliant work which started with the publication of ND. The entries in DIAL are under the head–words which 'have the phonetic structure proper to the earliest form of the language, still comparatively uniform, as brought into India by the Aryan invaders and first recorded in the Rgveda' (i).

The grammatical processes of inflection and derivation underlying these head–words may well belong to later stages and in interpreting the status of the head–words, Professor TURNER has rightly pointed out, "many of the head–words, like so much of

*Presidential address of the Indian Linguistics section at the 22nd All India Oriental Conference, Gauhati, Assam; Jan. 1965.

classical Sanskrit vocabulary, are in reality forms of Middle Indo–Aryan clothed, for the convenience of presentation, in an earlier phonetic dress. Moreover, in addition to words descended from the earlier Vedic vocabulary or from later material incorporated in Sanskrit, the modern languages share a very large number of words of unknown origin or suspected, with varying degrees of probability, of having come from Dravidian or Muṇḍā sources. Some of these have been collected under head–words in an appropriate form: see, for example 1104 * āḍḍerika- for which Sindhi attests long ā, Sindhi and Nepali -ḍḍ- and a suffix -ikā- or at least -iā-" (i).

This achievement of a savant, working single–handed, far away from India, finding time from his heavy administrative work as the Director of SOAS, should be an ādarśa for workers in Indian linguistics. The articles in DIAL are suggestive, many a time, of further research, and I would like to point out such theme, which, in a way, has already been hinted at by Professor Turner. The 'phonetic structure' of the head–words in DIAL is that of Old Indo–Aryan. At the other end are New Indo–Aryan entries, which are also phonetically interpreted. The attestation of OIA phonetic structure is possible with the aid of prehistory of Skt, established by comparative method within the framework of Indo–Iranian and Indo-European. The attestation of NIA is by observation. The MIA evidence is only literary; the Pali, Prakrit, Apabhramsa and various types of extra–Indian Prakrits present literary data which have to be phonetically interpreted. To give an example: Under the Nepali word moṭo 'big', there are various entries from other IA language, A.B.D.H.M. – moṭā, P.moṭṭā, G.moṭũ, Sgh. mota, which lead to a reconstructed *moṭṭa (~*mohṭṭa to account for Marathi moṭhā). This word is etymologically relatable to Skt mahat, Pkt maha - extended with pleonastic -ṭṭ-, attested in Ap. mahaṭṭayam. The MIA literary mahaṭṭayam and the reconstructed *moṭṭa, could be reconciled only by reinterpreting the Ap. -aha- sequence to have an -o- value in the phonetic structures of MIA. We derive this value by comparative reconstruction of NIA languages. It is this task, which, if taken up, would give a clearer picture of the history of various NIA languages, bring out the intervening phonological systems at various stages of successive splits. The literary data of MIA helps to fill in etymological gaps, but it cannot stand on par with OIA or NIA, unless it is reinterpreted in the light of comparative work in NIA. MIA is not 'a language stage' but is a label for a mass of literature which intervened between the Vedic Sanskrit and the literature of modern Indian languages. The indications of native speech-habits of that period can be seen in the sporadic croppig up of variant forms which were regarded 'scriebfahler' by the earlier editors of Prakrit texts (cf. Introduction to SCHUBRING'S edition of Ācārāṅga Sūtra 1.1). On the whole, the uniformity of Apabhramsa in the medieval period can only be matched by the uniformity of Sanskrit in the earlier period. Take for example the geminates in the sonant series in MIA literature and NIA languages; it is customary to say that -ll- > -ḷ- and -l- > -ḷ-, and -nn-, -ṇṇ- > -n- and -n- > -ṇ- in those NIA languages which display a contrast between n-ṇ and l-ḷ; the very nature of these changes, gives a clear internal chronology viz. the single sonant must have become a flap, and then only the geminate could have become single sonant.

Thus, the MIA grapheme -ḷ- should be phonetically and phonemically a /ḷ/. Languages such as Western Hindi which are n/l languages, must have passed through a stage of Proto-Hindi which retained n/ṇ and l/ḷ contrast and which later on merged to n and l. Similarly the merger of ḍ and ṛ (and in the Eastern group, r also) indicates an earlier retention of contrast, which though not graphemically observable in MIA literature, has to be assigned to earlier stages of the split of Indo-Aryan dialects. On the other hand, the distinction between -nn- and -ṇṇ-. maintained in parts of MIA literature, cannot be sustained by comparative material and they have to be assigned to the same phonemic entity. When Sinhalese data are added to this material, the reconstructed Indo-Aryan would take us close to the stage prior to the major splits; then only shall we be able to fit the reconstructed forms in ND and DIAL to the literary data.

In the publication of Dr. S. M. KATRE's lectures 'Introduction to Modern Indian Linguistics', with special reference to Indo-Aryan and Assamese' (University of Gauhati, 1961) delivered as Pratibha Devi memorial lectures in 1958 and Dr. A. M. GHATAGE's lectures 'Historical Linguistics and Indo-Aryan languages' (University of Bombay 1962) delivered as Wilson Philological lectures in 1962, we have a panoramic picture of the growth of Indo-Aryan languages and the language situation in India. Giving a historical background of linguistic research in India and the application of comparative method, Dr. KATRE has, characteristically, suggested usefulness of linguistics in Indian context, and given guidance for future line of work. Dr. GHATAGE has presented an exposition of the notions—classical and modern—underlying the historical and comparative method and following the standard works in Indo-European linguistics, presented a comparison of Vedic and Classical Sanskrit, explaining the distinction between the two. He has also presented a useful summary of the phonologies of NIA language as worked out during the last decade by various researchers whose findings were scattered in various journals.

A major contribution to the studies in comparative linguistics in India is Dr. Bh. KRISHNAMURTI's 'Telugu Verbal Bases, A comparative and descriptive study' (University of California Press 1961). This work, from a pupil of EMENEAU, coming on the heels of the Dravidian Etymological Dictionary by BURROW and EMENEAU, marks the beginning of rigorous techniques in historical-comparative study of Dravidian languages. I am not competent to discuss the problems of comparative Dravidian, but one can perceive rigorous treatment of the data under scrutiny when it brings out points which may be of wider theoretical interest. In the first Chapter 'A comparative and historical phonology', Dr. KRISHNAMURTY discusses the problem of alternation i/e and u/o in South Dravidian; before a derivative *a, both PDr *i and *e turn up as i in Tamil and Malayalam and e in Telugu and Kannada; Similarly, PDr *u, *o > Ta. Ma. u, Te. Ka. o. On the one hand, these phonemic mergers move in opposite directions compelling the historian to set up sharp language boundaries in which they operate independently, and on the other, the historian is faced with an extreme accident in which two simultaneous shifts yield the same result—loss of

contrast between each set of two vowels—and take place in adjacent languages independently. Dr. KRISHNAMURTY has explained the situation by invoking the notion of archiphoneme; the shift takes place at a period common to all the languages, Proto-South Dravidian (PSDr), and in the particular environment (C-a-; in a review, IL Vol. 24, 1963, Dr. SHANKARA BHAT has suggested a special restriction in this environment—when PDr C preceded * i or *e, p. 129) the oppositions between the entities i-e, and u-o are neutralised, with later changes in the divided South Dravidian, moving in the same direction. One can see, that if phoneme is a unit of a static situation, archiphoneme is a functional unit in a change situation; moreover, the phonetic realism underlying the archiphoneme notion is brought out more explicitly in this situation.

The Dhar inscription, earlier edited by Dr. H. C. BHAYANI (Bharatiya Vidya Vols. 17 1-4, 1959) is now available in a very well printed edition 'Rāul vel aur uskī bhāṣā' (Mitra Prakashan, Allahabad) by Dr. MATAPRASAD GUPTA; this is the earliest inscriptional evidence of the literary NIA; moreover, similar to passages in Kuvalayamala of Udyotana, here also we have short specimens of early NIA dialect variations.

The Rajasthan Oriental Series and the Prakrit Text Society have published a number of MIA and NIA texts; the reprinting of SHETH's Pāiasaddamahaṇṇavo now available at a very reasonable price of Rs. ten only will be welcome to Indian students. Professor ALSDORF's edition of the Asokan edicts at Dhauli and Jaugada (Asoka's separate Edicte von Dhauli and Jaugada—Verlag der Akademie dur Wissenschaftan und der literature—1962) brings out the importance of application of textual criticism to such data; linguistic data from such sources should satisfy exegesis. These separate edicts addressed to Asoka's officials of the newly acquired kingdom of Kalinga have presented some problems of exegesis, and Professor ALSDORF has suggested some emendations. Professor BROUGH's edition of 'The Gandhari Dhammapada (Oxford Uni. Press London, 1962) joins the collection of Prakrits found outside India. Gandhari—an appropriate apellation—was the official language, as also the language of religion, of Central Asia—Chinese Turkestan—in the early centuries of Christian era; its affinities are with the North-Western Prakrits of Gandhar. Prof. BROUGH's edition of this text and also his publication of fragment in 'A Kharoshṭhi Inscription from China' (BSOAS 24, 1961) are valuable contributions to the study of early MIA; the latter was mistakenly identified as Hebrew; it is a very short piece of about five lines and Professor BROUGH places it between the end of second century a.d. and early in third century a.d.

Dialect Studies

Data collection in a vast linguistic area such as India can never cease; GRIERSON made a pioneering effort, and a generation of linguistic historians fruitfully utilised his data. Studies such as R. P. AGARWAL's Bundeli kā bhāṣāśāstrīya adhyayan (Vishvavidyalaya Prakashan, Lucknow 1963), Rāmsvarup CATURVEDI's Āgrā jīle ki

bolī (Hindustani Academy, Allahabad 1961) present a descriptive study with historical backdrop; the lack of phonetic-phonemic sophistication is compensated by the mass of data.

Dr. Vitthal Prabhu DESAI's 'Satarāvyā satakāṁtil gomantaki bolī (University of Bombay 1963) supplies good information on earlier stage of Konkaṇī, and the details of external history presented here will be useful to the linguistic historian.

Dr. KRISHNAMURTI (Vṛttipadakośa, Andhra Pradesha Sahitya Academy) has conducted a word-and-thing study and has produced a wealth of material for the future lexicographer of Telugu. Dr. AGARWAL's study gives us some interesting morphological isoglosses and Dr. KRISHNAMURTI has given phonological and morphological isoglosses, which should prepare ground for future structural dialectology. Dr. GHATAGE (Poona) has launched a survey of Marathi dialects, portions of which are nearing completion. It may be interesting to note that most of the dialect work is published in regional languages; it is indicative of the enlightened speakers' interest in speech variations in his language. With more work in this direction, it would soon become imperative to add a dialect-digest to a journal like Indian Linguistics, so that such studies may reach wider audiences.

Indian grammatical tradition

There are welcome additions to the growing literature on early Indian linguistic tradition: Betty SHEFTS's dissertation 'Grammatical method in Pāṇini: his treatment of Sanskrit present stems' (American Oriental Society, 1961), illustrates Pāṇini's method by means of his treatment of present stems. She has translated relevant portions from Pāṇini, Mahābhāṣya and Kāśikā; being a linguist's effort to elucidate Paṇini's presentational procedures, it provides first-hand experience of Pāṇini's techniques. Beyond paying a homage to Pāṇini—and taking pride that linguistics originated in India—the Indian linguist has done precious little to elucidate, linguistically, Pāṇini's procedures. I may, here, cite from Professor THIEME's introduction to Betty SHEFTS's work 'I will and can not, of course, understate the differences of Pāṇinian and modern linguistics. In fact, they are just as striking as the analogies.' W. SIDNEY ALLEN in his 'Sandhi: the theoretical phonetic and historical bases of word-junction in Sanskrit' (Mouton & Co. 1962) studies the nature of morph-alternants in Sanskrit at the historical and descriptive level. One can easily see Professor ALLEN's departure from the strictly Firthian idiom (the word 'phoneme' is totally absent from his earlier 'Phonetics in ancient India, London 1953) and partaking freely of the transatlantic fare in linguistics; the book is all the more rewarding for that. Exposition of Pāṇini's technique is also a subject matter of a few articles; Dr. J. F. STALL's 'A Method of linguistic description: the order of consonants according to Pāṇini' (Language 38.1. 1962) and Mr. M. D. PANDIT's 'Zero in Pāṇini' (Journal—Humanities—of the M. S. University of Baroda 11-1-1962) and ' Pāṇini—a study in non-compounded word-structures' Vishveshvaranand Indological Journal (VIJ) 1-2-1963) and with

somewhat broader perspective Dr. Siddheswar VARMA's 'Scientific and Technical Presentation as reflected in the Mahābhāṣya of Patanjali (VIJ 1-1-1963) deserve special mention.

Statistical and Acoustic analyses

Expert linguistic briefing on matters of some practical value started with Dr. S. V. BHAGWAT's 'Phonemic frequencies in Marathi and their relation to devising a script for shorthand in Marathi' a Ph.D. dissertation prepared at the Deccan College (now published, Poona 1958). Existing shorthand techniques, largely depending on the English shorthand models and sometimes on ad hoc adjustments could not meet the demands of speed writing, and with the boosting up of regional languages in administration and education, the challenge was well met in Dr. BHAGWAT's effort. With this lead, phonemic and morphemic counts of various Indian languages were planned and some are completed; one of such counts. 'Phonemic and morphemic frequencies of Hindi' edited by Dr. A. M. GHATAGE' (Poona 1964) has been just published. It is hoped that these findings will influence government agencies which determine the keyboards for typewriters and recognise shorthand systems, although we have noticed that such decisions are taken independent of these useful findings. Linguists should, of course, bear such situations stoically; receptivity to technological change is a cultural problem. We already know how a linguistically sound suggestion of Romanisation of Indian scripts in the nineteen thirties from no less a scholar than Dr. Suniti Kumar CHATTERJI was shelved. I may mention here, a symposium on the same topic, Romanisation of Indian Scripts, published as a number of Seminar (New Delhi, December 1962). Transcriptional efficiencies of some Indian scripts have been examined more elegantly, and a comparison is made between English and each of the six Indian languages: Hindi, Marathi, Tamil, Malayalam, Telugu and Kannada, by a team of scientists, Messrs B. S. RAMAKRISHNA, K. K. NAIR, V. N. CHIPLUNKAR, B. S. ATAL, V. RAMACHANDRA and R. SUBRAMANIAN in 'Some aspects of the relative efficiencies of Indian languages'—a study from information theory point of view—(Indian Institute of Science, Bangalore, 1962). The tools of information theory are utilised and there is a lucid exposition of communication theory within the framework of ZIPF's 'relation between rank and frequency of words' which is a special case of his general principle of least effort. This statistical study marks a beginning of strict quantitative bias in studies of Indian languages. Such studies help fostering the new linguistic tradition in its transition from humanistic to behavioural bias.

Dr. C. R. SANKARAN's lectures, delivered in 1960 at the Institute for Phonetics and Communications Science, Bonn University, are now published in the Deccan College monograph series, 'Process of Speech' (Poona, 1963). Dr. SANKARAN's kaledioscopic presentation of speech processes from various aspects—biophysical, physical, mathematical, musical and epistemological, may slightly bewilder a mere linguist, but he will certainly perceive the erudition and industry of the learned author.

Linguistics and Language Teaching

Beginnings of work in applied linguistics with reference to language teaching are already made at the Central Institute of English (Hyderabad), and we hope that the long-awaited rapport between language-teaching and linguistics will be established very soon. A promising beginning has already been made by M. A. HAI and W. J. BALL in 'The Sound structures of English and Bengali' (Uni. of Dacca, 1961). Dr. V. B. ARUN's 'A Comparative Phonology of Hindi and Panjabi' (Panjabi Sahitya Akademi 1961) is rather a nondescript work with a misleading title. The comparisons lack a frame of reference. Comparisons between two languages could be relevant either for comparative reconstruction leading to an earlier stage or for typological interest or they could investigate in the areas of interference with a view to language teaching; comparison without such a frame of reference tends to become anecdotal and the learned author's efforts leave us disappointed.

Welcome innovations in Indian linguistic circles are the two publications, Dr. Punya Sloka RAY's 'Language Standardization' (Mouton & Co., The Hague, 1963) and Dr. N. G. KALELKAR's 'Bhāṣā āṇi saṁskṛti, (Mouj Prakashan, Bombay 1962); both the authors have incorporated a number of their earlier articles in these publications. Both tend to look at language in the larger framework of human behaviour, exploring areas of peripheral interest and bring a fresh outlook on questions of style and values, standardization and variation, efficiency and elegance.

Publication and reprinting of a number of text-books on linguistics in Indian languages indicate the growing demand for teaching aids in linguistics. Baburam SAKSENA's Sāmānya Bhāṣāvijnān (Hindi Sahitya Sammelan 6th ed. 1961) is now running in sixth edition; Dr. D. S. DWIVEDI's Bhāṣā aur bhāṣiki (Agra 1964), Dr. Uday Narayan TIWARI's Bhaṣaśāstra kī rūparekhā (Allahabad, 1963) are written in Hindi, Mr. K. B. VYAS's Bhāṣāvijnān (Tripathi, Bombay, 1964) is in Gujarati. A review of these text books, though not undertaken here, may reveal the standards of teaching linguistics in our regional media. Professor Suniti Kumar CHATTERJI's 'Languages and literatures of Modern India' (Bengal publishers, Calcutta 12, 1963) providing a panoramic survey of different language families in India will be a reference work for students of languages, history and culture.

* * *

This brief survey of publications in Indian linguistics is inadequate; the shortcomings are my limitations as a bibliographer and a linguist. I have tried here to draw your attention mainly to the writings of the Indian linguists so that the trends in Indian linguistics can be clearly observed; the picture will not be complete without the mention of the journal of the Linguistic Society of India, 'Indian Linguistics', whose changed contents bear witness to a decade of modern linguistics in India. Problems of phonemic and grammatical analyses of various languages of India, description of hitherto less known dialects, and reinterpretation of the historical data are some of the topics which

have occupied the younger linguists in India. Some of the studies are unpublished dissertations, some are unfinished projects; the Munda project, a collaboration between Indian scholars and the Chicago University and Dr. Punya Sloka RAY's project on Tibetan languages, when completed, will give a fuller picture of the language families in India. Most of these significant developments in linguistics will be found reflected in the numbers of this journal published after the linguistics programme was initiated at the Deccan College in 1954. The techniques and attitudes are changed, there is a greater emphasis on methods, a variety of topics ranging from acoustics to stylistics are under scrutiny. This variety of topics. the multidimensional development of perspectives is likely to disturb the generation of scholars who were walking steadily on the well-paved road of the 'Origin and Development' theme. This preoccupation with methods is a welcome departure in Indian linguistics and it is in this process that the terminology and language of linguistics have changed; we hear occasional outbursts and protests from our older colleagues against this language barrier between the two generations, but this inevitable hiatus is symptomatic of fundamental developments in the science.

The Indian linguist's control on the various techniques of analyses is not matched by innovations in analysis; his contributions are largely restricted to trying out the models currently available. This inability is partly due to lacunae in training; but it is also due to a reluctance in responding to the demands made on the science. A greater and a better understanding of language, for example, should be reflected in a better and efficient method of language teaching, but we have yet to see that change. The language scene in India is unique, and a linguist's formulation of the various situations would be much more valid and useful than the journalese formulations currently available. Take the question of teaching of Hindi in Northern India: is it necessary that Hindi should be taught for a period of eight or ten years to the speakers of languages with so many overlapping structures ? Could not a better and a more efficient method be devised ? After all, even those who are not formally trained in Hindi pick up common Hindi in a much shorter period.

Many other similar situations demand the linguist's attention. An inquiry into the transition areas in Indo-aryan and Dravidian and a study of the nature of linguistic diffusion and convergence will make 'India as a linguistic area' a meaningful theme. (See Suniti Kumar CHATERJEE's presidential address at the 17th All India Oriental Conference, 1953; Murray EMENEAU, 'Linguistic Prehistory of India' Proceedings of the American Philosophical Society 98.4. 1954). It is only within some such suitable frame of reference that our language-dialect surveys could develop into dialect studies.

The diglossia in the various language areas, reflecting socio-cultural stratification i.e. the Tamil diglossia on a brahmin-non-brahmin spectrum or the Hindi diglossia on a Hindu- Urdu-common Hindi spectrum or the Bengali sadhu bhasha-calit bhasha are changing with the growth of urban and industrial centres; Tamil diglossia is already giving way to the rise of standard colloquial Tamil (See Kamil ZVELEBIL 'Spoken language of Tamilnad' Archiv Orientální ' 32.3, 1964). On the other hand, it may be interesting

to note a boosting up of the diglossia in Hindi with a barrage of recently coined words. The former is a natural change, the latter is an engineered one.

Hindi was spreading and growing as a common language: the urban centres in India, many of them forming a multilingual complex, were developing different varieties of this common language, closely allied to the regional language which nurtured it. This sub-standard form was a strong link in the multilingual urban areas of the country. With greater mobility and industrial development it could have developed further; after all, transition from the sub-standard to standard is not a matter of change in language apparatus; it is a change in the cultural matrix. The zealous reformer and the impatient politician have not appreciated this situation, they have tried to build up a standard, word by word, and fixed a date for its acceptance; the vitality of such a form devoid of any cultural matrix is questionable.

Progress of linguistics, from a scholastic activity to a scientific inquiry, has been achieved by an ever-increasing emphasis on empirical inquiry and controlled experiments. Among all the behavioural disciplines, linguistic data are more self-contained, language structure is independent of other patterns of culture. hence there is greater scope for experimentation. Empirical approach has acted as a feed-back to linguistic theory and supplied verifiable hypotheses to replace the nineteenth century speculations on language. With the formalising of analytical techniques, the intuitive and culture bound judgements on language have automatically receded and are shelved. The formalisation of analytical procedures in linguistics began in nineteen thirties; BLOOMFIELD's postulates are thus a landmark in the growth of linguistic theory. When the tools of linguistics are more explicit, application of linguistics on much larger scale is possible.

A number of new journals and recent publications abroad, 'Language and Philosophy', 'Language and Logic', 'Linguistics and Language Teaching', 'Psycholinguistics', 'Biolinguistics', 'Sociolinguistics', 'Ethnolinguistics', indicate the focus on speach activity in an interdisciplinary collaboration. The linguist does not lose his identity, nor does he confuse linguistics and speech activity—it is the latter in which many others are interested—but by pooling and collecting the information, by comparing the techniques and procedures, he is able to assess his own information and technique. When one reads a work such as 'First five minutes: A sample of microscopic interview analysis' by Robert PITTENGER, Charles HOCKETT and John DANEHY (Ithaca, NY. 1960), a collaboration between the linguist and the psychiatrists, one finds how rewarding the application of linguistics could be in understanding speech-behaviour. Such inter-disciplinary work has a feedback effect and it is reflected in the changing methods in linguistics. Many of the recent changes in methods of grammatical analysis are due to impact of logic and mathematics; the new step in grammar—transformational grammar—is a result of such interdisciplinary interaction; it is a fundamental contribution and a definite departure from the Bloomfieldian descriptions based on hierarchical structures. Indian linguistics has yet to enter this phase; linguistics as a scientific inquiry can emerge only after breaking the shell of scholasticism.

The dynamic developments in modern linguistics are reflected in the methodological and terminological innovations. The philologist, exegesis-minded and etymology-oriented, is accustomed to aiming at the one correct answer; for him, methods and techniques are hurdles which have to be crossed to get the real, the correct answer. He is indignant at this outgrowth of philology to linguistics and bewildered at the metalanguage, the language to talk about language.

The changes in terminology, tools and techniques are important for the linguist; the linguist is not interested in the unique solution or in correct answer; he is interested in finding models which encompass the data, he is interested in the ways of looking at language design—and that is the field of linguistics.

STUDIES IN TULU

by

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This paper deals with the following six topics:

1. Phonological correspondences between two dialects of Tulu;
2. Merger of PDr. *c and **t* initially in the non-Brahmins' dialect;
3. palatalization of PDr. **k̜* initially in the Koraga dialect of Tulu;
4. **i/u*, **e/o* alternation in Tulu;
5. realizations of PDr. **r* in Tulu; and
6. absence of SDr. **i/e*, **u/o* alternation in Tulu.

1. Phonemic correspondences between the following two dialects of Tulu are discussed below:

dialect A : of šivaḷḷi community (Brahmins')

dialect B: of sapaliga community (non-Brahmins')

1.1. We can posit the following phonemes for dialect A.

a) vowels: *i, e, ε, a, o, u*, and ɨ. Vowel length and nasalization (infrequent) are also phonemic.

b) consonants: *p, t, ṭ, c, k̜, b, d, ḍ, j, g, m, n, ṇ, ñ, ŋ, y, r, l, ḷ, v, s, š, ṣ*, and *h*.

c) In the case of stops, aspiration is phonemic. But, it can be treated as an allophone of *h*.

1.2. The phonemic system of dialect B differs from the above one in the following respects:

a) The two phones *n* and *ṇ* are in free variation, and thus form allophones of one single phoneme. We propose to write the phoneme as *n*.

b) The phones *l* and *ḷ* are also in free variation and we can consider them as allophones of the phoneme *l*.

c) This free variation, however, does not exist in cases where the phoneme *n* or *l* is immediately preceded or followed by a retroflex stop. But, in such cases we

always have *ṇ* or *ḷ* and thus the sounds in the two sets continue to be in non-nontrastive distribution.

d) Aspiraion is not phonemic, and *h* is not found to occur in the dialect.

e) Nasalization also is not phonemically distinct.

f) There is only one sibilant phoneme s having ṣ as its allophone occurring before retroflex consonants. Palatal sibilant is not found to occur in the data.

1.3. The correspondences discussed below represent only those in which a particular sound of dialect A corresponds to a different sound in dialect B. Some of the minor phonemic correspondences are not included here.

1.4. *ṇ* of dialect A corresponds to *n* of dialect B.

The following are a few examples:

dialect A	gloss	dialect B
kiṇkɨ	to pinch	kinkɨ
ke:ṇɨ	to hear	ke:nɨ
aṇṇe	elder brother	anne
a:ṇi	nail	a:ni
puṇa	corpse	puna
poṇṇɛ	kind of tree	ponnɛ

1.5. *ḷ* of dialect A has two different correspondences in dialect B:

a) Generally, it corresponds to *l*:

a:ḷɨ	she	a:lɨ
puḷi	tamarind	puli
baḷḷɨ	rope	ballɨ
kaḷaŋki	turbid	kalaŋki
koḷkɛ	hook	kolkɛ

b) It corresponds to *r* of dialect *B* in the following instances:

agaḷɨ	ditch	agarɨ
amaḷɨ	twine	amarɨ
aḷasaṇḍɛ	beens	arsaṇḍɛ
uḷɛ	deer	urɛ
uḷcuṇa	to go to stool	urci
oḷaŋka	seer	oraŋka
oḷipuṇa	to be retained	ori
kaḷepuṇa	to deduct	kari
kuḷipuṇa	to decay	kuri
keḷaŋgi	sweet potato	gireŋgi
koḷpuṇa	to give	koru

ko:ḷi	fowl	ko:ri
gaḷpuṇa	to dig	garpu
gaḷipuṇa	to scratch	gari
gaḷu	rafter	garu
giḷipuna	to loosen	giri
guḷi	pit	guri
guḷkɛ	a large vessel	gurkɛ
sabuḷu	red ant	taburu
taḷepuṇa	to rub	tare
ta:ḷɛ	coconut tree	ta:rɛ
ta:ḷi	palm tree	ta:ri
toḷipuṇa	to kick	torpu
ñakkuḷu	earthworm	nakkuru
paḷa	old	para
paḷaŋgi	to decay	paraŋgɨ
puḷi	worm	puri
puḷcaṭɨ	arrogance	purjanṭɨ
puḷku	rheum	purku
puḷga	over boiled rice	purku 'to over boil'
puḷŋgu	civet cat	purŋgu
pogaḷuṇa	to flatter	pugarɨ
poḷtu	time	portu
baḷi	edge	bari
ba:ḷɛ	plantain tree	ba:rɛ
bu:ḷu	creeper	bu:ru
bu:ḷuṇa	to fall	bu:ru
boḷipuṇa	to milk	bori
bo:ḷu	bald	bo:ru
magaḷuṇa	to fall	magarɨ
muḷkuṇa	to sink	murku

Among these two sets of correspondences. a) goes back to PDr. *ḷ and b) goes back to PDr. *ḻ.

1.6. An initial short vowel of dialect A corresponds to zero in dialect B, provided the following conditions are fulfilled:

a) The consonant occurring between the first two vowels of the word must be i) single and ii) other than velar or labial consonants.

b) Between the second and third vowel of the word, there must be a cluster of atleast two consonants.

c) First two vowels of the word must be short.

It may be noted here, that initially ḍ becomes *d* in dialect B.

The following are the instances found in the material.

dialect A		dialect B
aḍakkuṇa	to throw	dakkɨ
aḍappuṇa	to plough	dappu
aḷappuṇa	to measure	lappu
ujumbuṇa	to suck	jimbu
uṇŋgu	tick	nuŋgu
umpu	cooked rice	nuppu
eḷañci	ladder	leñci
eḷattɨ	tender	lattɨ
eḍaŋkuṇa	to stumble	daŋkɨ
oḷaŋka	seer	raŋka
oreŋkuṇa	to smear	reŋkɨ
oḷacilɨ	pasture	laccilɨ
oḷepuṇa	to call	leppu

Similar correspondences are found in the following instances where forms for dialect A comes from the speech of a Śivaḷḷi informant from Kasaragod.

aḍeŋguṇa	to hide	deŋgɨ
aḷambu	moss	la:m
aḷabbɛ	weak	labbɛ
alumbuṇa	to wash clothes	lumbu
eḍattɨ	left	dattɨ
eḍeñji	crab	deñji

1.7. Vowels *e* and *o* of dialect A correspond to vowels *i* and *u* of dialect B in the initial syllable, provided the second syllable contains the vowel *e* or *a*, and the consonant between the first two syllables is a single one.

vowel *e* : *i*

kereñci	mire	kireñci
kerepuṇa	to smear floor with cowdung	kirepu
keḷañji	house fly	kileñji
keḷaŋgɨ	sweet potato	gireñgɨ
neraḷɨ	shadow	nireḷɨ
nerekarɛ	neighbouring	nirekarɛ
peramaṇɛ	greater	piredanɛ
beraḷɨ	finger	bireḷɨ
berasɨ	to mix	biresɨ
esaḷɨ	petal	isaḷɨ
nesaḷɨ	forehead	nisaḷɨ
begarɨ	sweat	bigarɨ

bejakrɛ	dried leaf	bijakrɛ
nela	floor	nila
pela	jack	pila

vowel *o* : *u*

orepu	to try metals	urepu
koḍari	axe	kuḍari
koranṭɨ	mango seed	kuranṭɨ
koraḷɨ	ear of corn	kuralɨ
korepuṇa	to bark	kurepu
koḷañji	field with much water	kuleñji
kojanṭɨ	refuse of vegitables	kujanṭɨ
toḍaŋkɨ	long hook	tuḍaŋkɨ
pogaḷɨ	to flatter	pugarɨ
poḍekɨ	to roll	puḍekɨ
poḍepu	to winnow	puḍepu
noga	yoke	nuga
oḷa	inner	ula

1.8. There are a few exceptions to the above rule, but they are most probably cases of recent loans.

pedambu	oblique	pedambu
kesarɨ	mud	kesarɨ
nevana	pretex	nevana
kodanṭi	cudjel	kodanṭi
oranṭɨ	hatred	oranṭɨ
toḍamɛ	fixed gate	toḍamɛ

1.9. The second vowel of a word of (C)VCVCV pattern of dialect A corresponds to zero of dialect B. The following are a few examples:

vowel *i*

kajipu	curry	kajpu
kadikɛ	grannery	kadkɛ
paḍilɨ	waste land	paḍlɨ
padipɛ	greens	padpɛ
madimɛ	marriage	mạdmɛ
nalipu	to dance	nalpu
saḍilɨ	loose	saḍlɨ

vowel u

mukuli	mouthful	mukli
kuruḍe	blind	kurḍe
sakulɛ	bed bug	taglɛ
kuruḷɛ	plant of plantain	kurlɛ

vowel ɨ

akiḍɨ	to hang	akḍɨ
naḍɨgɨ	to tremble	naḍgɨ
bedɨ ɨ	bamboo	bedrɨ

vowel a

karaḷɨ	intestine	karlɨ
davaḍɛ	cheek	davḍɛ
baraṇi	jar	barni
maḍalɨ	leaf of coconut	maḍlɨ

It must however be noted here that the syllabic pattern (C)VCVCV is quite common in dialect B also, and a number of words of this pattern in dialect B correspond to words of identical pattern in dialect A. The following are a few examples for dialect B:

kubalɨ	top of roof
balakɛ	boasting
nigalɨ	wave
iralɛ	kind of nut
edɨrɨ	in front
cuguli	skin
maligɛ	cloth store

1.10. A long vowel occurring in the second syllable of a trisyllabic word in dialect A corresponds to a short vowel in dialect B, provided the first vowel is short.

The correspondence is noted in the case of vowels *a* and *e* only, of which *a* is more frequent.

caḍa:vu	slope	caḍavu
pala:yi	plank	palayi
pida:ḍɨ	to start	pidaḍɨ
pina:ri	kind of root	pinari
puḍa:yi	kind of basket	puḍayi
poŋga:rɨ	kind of tree	poŋgarɨ
garga:sɨ	saw	gargasɨ
tuḍa:rɨ	lamp	tuḍarɨ
gurka:re	headman	gurkare
ujje:rɨ	pestle	ujjerɨ
kokke:rɨ	to have horripulation	kokkerɨ

There are a few instances where dialect B also shows a long vowel in the above environment. They may possibly be due to recent loans.

baŋga:rɨ	gold	baŋga:rɨ
anda:ji	estimation	anda:ji
buḍa:ra	small house	buḍa:ra
kume:rɨ	pasture	kume:rɨ

1.11. The phoneme *d* of dialect B corresponds to *j* of dialect A initially, provided the following vowel is *i*, *i:* or *e*.

jiñja	much	diñja
jiñjɨ	to fill	diñjɨ
ji:rɨdari	kind of rice	di:rsalɛ
jeñji	crab	deñji
jekkɨ	to wash	dekkɨ
jeppu	to open	deppu 'to take'

The following words of dialect A seem to be exceptions:

dikkɨ	direction	dikkɨ
dikkelɨ	hearth	dikkelɨ
diṇṇa	heavy	dinna
derpu	to lift	derpu

2. A short survey of Tulu dialects has revealed that the two phonemes **t* and **c* of PDr. have merged together initially in all Tulu dialects excepting the one used by the Brahmins. In that dialect **c* has become *s* initially and **t* remains unchanged.

2.1. The material used to describe this merger of PDr. **c* and **t* here comes from the Sapaliga dialect of Udupi for non-Brahmins' dialect and from Sivaḷḷi dialect of Udupi for Brahmins' speech.

2.2. There are about 20 words in the material in which PDr. **c* is represented by c in both the dialects. All these appear to be borrowed elements.

Sivaḷḷi		Sapaliga
cakkɨ	lean	cakkɨ
caṭṭɛ	flat	caṭṭɛ
ceṇḍɛ	drum	ceṇḍɛ
cu:ru	piece	cu:ru

2.3. There are a number of instances (about 60) in which PDr. **c* is represented by *s* in both the dialects. Most of these are loan words from Kannada which is the regional language in South Kanara. The rest can be considered as native for Sivaḷḷi dialect since initial *s* is a straight-line development in that dialect for initial **c*. But in the case of Sapaliga dialect all forms with initial *s* will have to be considered as loan words, because the straight-line development of initial **c* in that dialect is *t* as is evidenced by the instances given below (2.4.).

The following are a few instances of initial *c : s in both the dialects.

saḍilɨ	loose	saḍlɨ
sari	currect	sari
sa:go:ḷi	cultivation	sa:go:li
suṇṇa	lime	sunna
seḍilɨ	thunder	siḍilɨ
se:rɨ	seer	se:rɨ
suḍpuṇa	to burn	suḍu

2.4. There are about 35 instances in which initial *c of PDr. is represented by s in Sivaḷḷi dialect and t in sapaliga dialect. These words represent the straight-line development of initial *c for both the dialects. The change of *c to t in Sapaliga dialect does not seem to have any other restriction except that the sound be initial. The following are a few examples.

sanɛ	conceiving (cattle)	tane
sappu	leaf	tappu
say	to die	tay
savtɛ	cucumber	tavtɛ
sa:ŋkɨ	to rear up	ta:ŋkɨ
sa:lye	spider	ta:lye
suttu	to wear	tuttu
surɛ	smooth gourd	turɛ
su:	to see	tu:
so:ru	to leak	to:ru
seṭṭɨ	to decay	teṭṭɨ
seppu	coconut fiber	teppu

2.5. PDr. *t has remained as t in both Sapaliga and Sivaḷḷi dialects. There are a few instances in which one or the other of these show s, but evidently they are borrowed elements (see 2.3.)

2.6. There is enough evidence (see 2.11) to show that the merger of *t and *c was cmmon to all non-Brahmins' dialects of Tulu. We may posit a phoneme *t for Proto-non-Brahmins' Tulu, to represent the two phonemes *c and *t after merger.

2.7. The phoneme *t of proto-non-Brahmins' Tulu has the following realizations in its modern dialects: *t*, *c*, *s*, *h*, and zero.

2.8. A more detailed survey of Tulu dialects is necessary to define the exact distribution of each one of these realizations. The creteria are 1) the particular region in which a given dialect is spoken, and 2) the community to which it belongs. Thus, initial *t* is found in Udupi and Mangalore, *s* in Kasaragod, and zero in Puttur. In Subrahmanya, a man belonging to Mansa (Harijan) community has zero to represent initial *t and a man of Kudiya community of the same place has *h*.

2.9. The following general statements, however, can be made on the basis of the material collected: in coastal area, *t* dialects are found to the north, and *s* dialects to the south: *h* and zero dialects are found in the remaining regions, with a possible prominence of *h* in the north; *c* dialects are found among tde Harijan communities of the southern coastal region.

2.10. In order to illustrate the sound changes discussed above, a short comparative word list is given under 2.11. below. The material comes from the following five non-Brahmin communities:

1.	Sapaliga:	Udupi (North, coastal)
2.	Jain[1]	Karkal (North)
3.	Jain[2]	Puttur (South)
4.	Holeya	Kasaragod (South, coastal)
5.	Setti	Kasaragod (South, coastal)

The words are grouped in three sections: words with the initial sound going back to a) PDr. **t*; b) to PDr. **c*; and c) additional items. References in the bracket are to DED.

gloss	Sapaliga	Jain[1]	Jain[2]	Holeya	Seṭṭi	(DED)
a) to cut leaves	tajappu	hajappu	ajappu	cayappu	sajappu	(2562)
stale rice	taññana	taññana	aniyano	caṇṇeno	saññano	(2473)
head	tarɛ 'hair'	tarɛ 'hair'	arɛ	carɛ	sarɛ	(2529)
to wear off	tare	hare	are	care	sare	(2541)
to sprinkle	tali	hali	ali	caḷi	sali	(2827)
to chop off	——	haverɨ	——	cabarɨ	——	(2539)
bran	tavḍu	havḍu	avḍu	cavḍu	savḍu	(2537)
bed bug	taglɛ	tagulɛ	agulɛ	caguḷɛ	cagulɛ	(2426)
to hit	ta:nṭɨ	ha:nṭɨ	ta:nṭi	ca:nṭɨ	sa:nṭɨ	(2576)
coconut	ta:rayi	ha:rayi	a:ragɛ	ca:ragɛ	sa:ragɛ	(2601)
palm tree	ta:ri	——	——	ca:ri	sa:ri	(2599)
to sink in earth (water)	ta:rɨ	ha:rɨ	la:rɨ	ca:rɨ	sa:rɨ	(2597)
coconut tree	ta:rɛ	ta:rɛ	a:rɛ	ca:rɛ	sa:rɛ	(2601)
honey	tiga	tiga	ci:ya	ci:yo	ci:yo	(2674)

earthen seat	——	——	ityɛ	ciṭṭɛ	cityɛ	(2633)
to eat	tinɨ	tinɨ	inɨ	cinɨ	sini	(2670)
split grain	——	——	ibari	cibari	——	(2757)
sweet	ti:pɛ	hi:pɛ	——	ci:pɛ	ci:pɛ	(2674)
to be able	ti:rɨ	——	i:rɨ	ci:rɨ	si:rɨ	(2683)
river	tudɛ	hudɛ	sudɛ	cudɛ	sudɛ	(2773)
sneeze	tumbilɨ	tummilɨ	umbilɨ	cimmili	cumbuli	(2740)
to extinguish	tekkɨ	tekkɨ	okku	cokku	sokku	(2802)
south	teŋkayi	teŋkayi	tenkayi	cenkayi	sanikkayi	(2839)
to know	teri	teri	teri	ceri	seri	(2815)
ring for pot	teriya	teriya	eriyɛ	ceriyɛ	ceriyɛ	(2816)
wave	——	——	——	cerɛ	serɛ	(2653)
to clear (water)	telli	——	eli	ceḷi	seli	(2825)
levelled up (in measuring)	te:kɛ	he:kɛ	e:kɛ	——	——	(2843)
cradle	toṭṭilɨ	hoṭṭilɨ	oṭṭilɨ	coṭṭilɨ	soṭṭilɨ	(2870)
thigh	toḍɛ	tuḍɛ	uḍɛ	cuḍɛ	tuḍɛ	(2704)
kind of gate	toḍammɛ	taḍammɛ	aḍammɛ	caḍammɛ	saḍammɛ	
to kick	torpu	horppu	orippu	——	torippu	
to appear	to:ji	ho:ju	o:ju	co:ju	so:ju	(2942)
garden	to:ṭa	to:ṭa	to:ṭo	co:ṭo	so:ṭo	
small stream	to:ḍu	to:ḍu	o:ḍu	co:ḍu	so:ḍu	(2921)
to be defeated	so:pu	——	so:pu	co:lpu	so:lpu	(2936)
b) flat laddle	saṭiga	taṭuga	aṭṭugo	caṭṭigo	saṭṭugo	
conceiving (cattle)	tanɛ	hanɛ	anɛ	canɛ	sanɛ	(2134)
leaf	tappu	happu	appu	cappu	sappu	(2200)
to die	tay	hay	say	cay	say	(2002)

cucumber	tavtε	havtε	avtε	cavtε	savtε	(1984)
cultivation	sa:go:li	sa:go:li	sa:go:li	——	sa:goli	(2006)
to rear up	ta:ŋkɨ	ha:ŋkɨ	sa:ŋkɨ	——	sa:ŋkɨ	(2003)
row	sa:lɨ	——	——	ca:lɨ	sa:lɨ	(2038)
weaver	ta:lye	ta:lye	ca:lye	ca:letti	ca:lye	(2042)
to split	——	——	sigi	cigi	sigi	(2056)
coconut shell	tippi	tippi	ippi	cippi	——	(2089)
eye lash	simε	si:mε	simε	cimmε	simmε	(2097)
to be weak	sirkɨ	hirkɨ	irkɨ	——	sirkɨ	(2065)
to bite	tucci	huccu	——	ciccu	——	(2285)
to burn	suḍu	——	suḍu	cuḍu	suḍu	(2183)
to wear	tuttu	huttu	uttu	cuttu	suttu	(2238)
to carry on head	tumbu	humbu	umbu	cimbu	sumbu	(2204)
smooth gourd	turε	surε	surε	curε	surε	(2216)
to see	tu:	hu:	u:	cu:	su:	(2257)
torch	tu:ṭε	hu:ṭε	——	cu:ṭε	su:ṭε	(2183)
cough	temma	temma	emmo	cemmo	——	(2093)
to pour out (grain)	sori	dori	ori	cori	sori	(2353)
leaf of arecanut tree	so:gε	——	——	co:gε	so:gε	
to leak	to:ru	ho:ru	o:ru	co:ru	so:ru	(2353)
c) small square mat	takkana	——	akkano	——	——	
to carry (child)	taṭṭɨ	haṭṭɨ	aṭṭɨ	caṭṭɨ	saṭṭɨ	
winnowing basket	taḍpε	haḍpε	aḍpε	caḍpε	saḍpε	
threshold	taḍya	haḍya	aḍya	caḍyo	——	
to overflow	tamelɨ	hamelɨ	amelɨ	camelɨ	samelɨ	

split bamboo	——	halakkɛ	——	calakkɛ	——
way	ta:di	ha:di	a:di	——	ca:di
small stream	——	ha:ri	a:ri	——	——
below	tirti	——	irti	cirtɨ	——
to scrape	si:ṇṭi	hi:ṇṭi	si:ṇṭi	ci:ṇṭɨ	si:ṇṭɨ
cucumber	tekkare	tekkarpɛ	ekkarpɛ	cekkarpɛ	cekkarpɛ
to decay	teṭṭi	teṭṭi	eṭṭi	ceṭṭɨ	seṭṭɨ
very tender coconut	teṇḍeli	heṇḍeli	ceṇḍeli	ceṇḍibe:li	
web-like thing on coconut top	——	hepparigɛ	epparigɛ	——	——
outer cover of coconut	teppu	teppu	eppu	ceppu	ceppu
to breathe heavily	te:ŋki	he:ŋki	se:ŋki	ce:ŋki	se:ŋkɨ
kind of root	te:vu	he:vu	ce:vu	ce:vu	se:vu

3.1. In the Koraga dialect of Tulu, spoken in the Peradala village of Kasaragod Taluk (Kerala), initial *k has become c when followed by vowels i, i:, e or e:. However, when the vowel was directly followed by a retroflex consonant or r, the change did not take place. The following instances are noted:

(The words given in the second column are from a Tulu speaker belonging to the Holeya community of the same region).

Koraga		Holeya
cidɛ	cowshed	kidɛ
cilli	spathe vessel	killi
ci:ḷi	branch of bamboo	ki:ḷɨ 'peg'
cilañji	house fly	kiḷeñji
cekkili	neck	kekḷɨ
cetti	egg	ketti
cettapune	to chip	kettu:ṇɛ

cedu	tank	kedu
cende	red coconut	kenda:ḷi
cenni	temple	kenni
ceppaṭe	cheek	keppaṭe
cebi	ear	kebi
cendeli	udder	kendeli
ce:ne	kind of root	ke:ne
ce:pḷa	a flower plant	ke:pḷa

3.2. The following items show that the palatalization was absent before a retroflex sound or *r*:

ke:ṇune	to hear	*ke:ṇuṇa*
ke:ḍi	decayed	
kirmbune	to itch	*kirmuṇa*
kerpune	to kill	*kerpuṇa*
ke:rpu	ladder	*ke:rpu*
ke:ri	rat snake	*ke:ri*

4.1. Proto-Dravidian vowels *i, *ī *e and *ē of the initial syllable became *u*, *u:*, *o* and *o:* respectively in Tulu provided a) the preceding consonant is labial and b) the following consonant is retroflex:

*i > u

puḍi	handle	Ka. piḍi	(3412)
punḍu	to wring	Ka. pinḍu	(3440)
puṇa	corpse	Ta. piṇam	(3420)
puḷḷi	grandchild	Ta. piḷḷai 'child'	(3449)
buḍu	to leave	Ka. biḍu	(4419)
buḷipu	to cry	Ta. viḷi 'to say'	(4460)
buḷe	to grow	Ta. viḷai	(4464)
muṭṭe	heap	Ka. miṭṭu 'raising ground'	(4151)
muḍi	tender fruit	Ka. miḍi	(3975)

*ī > u:

bu:ḍu	hunting place	Ka. bīḍu 'house'	(4419)
bu:ḷu	to fall	Ka. bīḻu	(4457)
bu:ṭu	to revenge	Ma. vīṭuka	(4482)

*e > o

poṭṭu	blighted	Ta. peṭṭu 'lie'	(3603)
poṇjo:vu	female	Ta. peṇ	(3608)
boḍi	to get tired	Ma. veṭiyuka	(4505)
boṇḍu	marrow	Ka. beṇḍu 'pith'	(4509)
boḷḷa	flood	Ta. veḷḷam	(4529)
boḷdu	white	Ka. beḷ	(4524)
moṇṭɛ	grass hopper	Ka. miḍte	(3974)

*ē > o:

po:ḍigɛ	fear	Ta. pēṭi	(3631)
bo:ḍu	want	Ka. bēku	(4548)
bo:ṇṭɛ	hunting	Ka. bēṭe	(4547)

4.2. There are just two instances showing the change of PDr. *i to u when the following consonant is velar.

pugelɨ	shoulder	Ta. pical	(3432)
bukku	to sob	Ka. bikku	(4412)

4.3. However, instances showing the vowel i before a velar consonant are more common.

mikkɨ	to exceed
bigi	to tighten
bi:ge	relative by marriage

4.4. The following words show a reverse case with a dental or alveolar consonant following the vowel, which however is not a regular change.

pinpuṇa	to know	Pa. pun	(3563)
pili	tiger	Ka. puli	(3532)
mire	breast	Ta. mulai	(4087)

5.1. Intervocally PDr. *ṟ becomes *d* in Tulu.

adɛ	inner room	Ta. aṟai 'room'	(272)
edi	honey comb	Ta. iṟavu	(441)
kadikɛ	kind of grass	Ka. kaṟike	(1136)
kadɛ	stain	Ka. kaṟe	(1175)
kidɛ	cowshed	Ka. kiṟ 'to confine'	(1648)
kudaḍɨ	log of wood	Ta. kuṟaṭu	(1528)
kuduppu	to saw	Ta. kuṟai	(1544)
kuduru	small island	Ta. kuṟai	(1545)
kudɛ	log of wood	Ta. kuṟaṭu	(1528)
kedu	tank	Ka. keṟe	(1648)
tudɛ	river	Ta. tuṟai	(2773)
padavu	small hill	Ta. paṟampu	(3316)
pideyi	outside	Ta. puṟam	(3554)
pudɛ	load	Ka. poṟe	(3729)
madaga	tank	Ta. maṟi-paṭu 'to dam'	(3902)
madappu	to forget	Ta. maṟappu	(3897)
madɛ	screen	Ta. maṟai 'to be hidden'	(3897)
mudarɨ	rubbish	Ta. muṟi 'to be spoiled'	(4108)
mudi	to pluck	Ta. muṟi 'to break'	(4109)
ke:dɨ	mud	Ta. cēṟu	(1680)
nu:du	hundred	Ta. nūṟu	(3090)
pa:dɛ	rock	Ta. pāṟai	(3392)
ma:dɨ	to turn	Ta. māṟu 'to return'	(3960)

5.2. There are a few instances in which PDr. *r̲ is realized as *j*.

kajipu	curry	Ta. kar̲i	(1171)
peji	to pick up	Ta. per̲uku	(3623)
baji	mere	Ka. bar̲i	(4299)
bejakrɛ	dried leaves	Ta. vir̲aku 'firewood'	(4467)
bejaṇṭɨ	dried cowdung	Ka. ber̲aṭi	(4356)
majɛ	mole	Ta. mar̲u	(3904)
a:ji	six	Ka. ār̲u	(2051)
a:jɨ	to dry	Ka. ār̲u	(346)

It is interesting that in most of the above cases the consonant is followed by a palatal vowel.

5.3. There are a few items showing Tulu *r* for PDr. *r̲. Most of these are borrowed items.

ja:ruṇa	to slip	Ta. per̲r̲am	(3424)
gari	feather	Ka. gar̲i	(1174)
du:ruṇa	to abuse	Ka. dūr̲u	(2793)
pa:ruṇa	to run	Ka. pār̲u	(3311)
bi:ruṇa	to boast	Ta. vīr̲u 'arrogance'	(4491)

5.4. PDr. cluster *r̲r̲ is realized as *tt* in Tulu after a short vowel and *t* after a long vowel.

ottɛ	pledge	Ta. or̲r̲i	(858)
ottu	to press	Ta. or̲r̲u	(859)
netti	crown of head	Ta. ner̲r̲i	(3118)
pattɨ	to hold	Ta. par̲r̲u	(3320)
petta	cow	Ta. per̲r̲am	(3424)
muttajji	great grandmother	Ta. mur̲r̲avai	(4117)
muttu	to become extinct	Ta. mur̲r̲u	(4117)

After a long vowel:

nu:ta	hundred (obl.)	Ta. nūṟṟu	(3090)
be:te	seperate	Ta. vēṟṟan 'stranger'	(4564)

5.5. PDr. cluster *ṉṟ is represented by ñj before a palatal vowel and nd elsewhere. After a long vowel, however, it is realized as j.

oñji	one	Ta. oṉṟu	(834)
kañji	calf	Ta. kaṉṟu	(1187)
pañji	pig	Ta. paṉṟi	(3326)
bañji	stomach	cf. Ta. vayiṟu	(4299)
kandɨ	to be pale	Ta. kaṉṟu	(1186)
kundu	to evaporate	Ta. kuṉṟu 'to decrease'	(1537)
sundu	to wind	cf. Ta. cuṟṟu	(2238)
mu:ji	three	Ta. mūṉṟu	(4147)
so:ju	to appear	Ta. tōṉṟu	(2942)

5.6. When followed by a consonant, *ṟ is represented by r.

arvɛ	cloth	Ka. aṟive	(268)
urḷu	noose	Ma. uṟi	(564)
gurta	acquaintance	Ka. guṟutu	(1533)
tarkatti	kind of sickle	Ta. taṟi 'to chop off'	(2562)
nurpu	to crush	Ka. nūṟu	(3089)
pe:rpu	to curdle	Ka. peṟ	(3621)

5.7. The following seem to be exceptions, but can be explained by positing a vowel after *ṟ which was elided later on.

kudke	fox	Ma. kuṟukkan	(1537)
pedpu	to beget	Ka. peṟ	(3622)

6.1. Absence of SDr. *i/e, *u/o alternation in Tulu: This demonstration is necessary because earlier writers on this subject considered Tulu as either showing vowels *e* and *o* for the PDr. vowels *i and *u respectively before a derivative *a^{2} or were uncertain as to the exact position of Tulu in this respect[3].

6.2. This uncertainity is mainly due to the fact that most of these writers depended on MANNER's Tulu dictionary for their material on Tulu. This dictionary does not indicate the particular dialect from which a given item is elicited and since the dialectal varitions are quite numerous in Tulu one cannot use the material successfully for scientific research.

6.3. The sound change in question concerns with the four PDr. vowels *i*, *e, *u and *o occurring in the root syllable[4]. The vowels *i, *u became *e* and *o* respectively in Kannada and Telugu and the vowels *e and *o became *i* and *u* respectively in Tamil and Malayalam provided, a) they were followed by the vowel *a in the next syllable, b) the consonant intervening the two vowels was a single one[5], c) the root syllable did not begin with *c[6] and d) the conditioning was not caused by an inflectional suffix.

6.4. The quality of the PDr. vowel occurring in a root syllable in which the above mentioned change has taken place can be decided on the basis of the root syllable occurring alone or in other environments which do not satisfy the above conditions. In order to show that Tulu was not affected by the above alternation relevant material is presented below in differen secions based on the creterian used for determining the PDr. vowel quality.

6.5.

kidɛ	cowshed	Ka. kiṟ 'to confine'	(1648)
eḷattɨ	tender	Ka. eḷ	(436)
boḷantyari	white rice	Ka. beḷ 'white'	(4434)
munɛ	point	Ta. muṉ 'in front'	(4119)
ora	once	Ka. or 'one'	(834)

6.6.

keḍakɨ	trouble	Ka. keḍu 'to perish'	(1614)
keḷaŋgɨ	sweet potato	Te. genusu	(1314)
gumelɨ	to burn inside	Te. kumulu	(1460)
muḍe	to plait	Te. muḍuta 'plait'	(4036)
mugalɨ	cloud	Ka. mugilu	(4006)

mura	kind of stone	Ta. muruṭu 'rough'	(4074)
mudarɨ	rubbish	Ta. mur̲i 'to be spoiled'	(4108)
oḍe	to break	Ta. oṭi	(799)
koḍappu	to peck	Ta. koṭṭu 'to sting'	(1718)
pode	to cover	Te. podugu	(3686)

6.7.

tiga	honey	Tu. ti:pɛ 'sweet'	(2674)
puṇa	corpse	Te. pīnũgu	(3420)
toḍaŋkɨ	'long hook	Ka. dōṭi	(2925)

6.8. In addition to the above instances, we may also note the following sets as pieces of evidence.

iṇɛ	couple	Ta. iṇai Ka. eṇe	(387)
irɛ	leaf	Ta. ilai Ka. ele	(423)
iḷɛ	thread	Ta. il̲ai Ka. el̲e	(429)
niṇɛ	wick	Ta. niṇai 'to plait' Ha. neṇe 'wick'	(3036)
pideyi	outside	Ta. pir̲ar 'outsiders' Ka. per̲a	(3554)
pugelɨ	shoulder	Ta. pical Ka. pegal	(3432)
buḷe	to grow	Ta. viḷai Ka. beḷe	(4464)
eḍaṇkɨ	to stumble	Ta. iṭar̲u Ka. eḍaru	(371)
eḍa	left	Ta. iṭai Ta. ital̲	
esaḷɨ	petal	Ta. itar̲ Ka. esaḷ	(389)
nenapu	memory	Ta. ninai 'to remember' Ka. nene	(3050)

begarɨ	sweat	Ta. viyar	
		Ka. bevaru	(4516)
beraḷɨ	finger	Ta. viral	
		Ka. beral	(4436)
uḍalɨ	body	Ta. uṭal	
		Ka. oḍal	(501)
guḍɛ	rat's hole	Ta. kuṭai 'hollow'	
		Ka. koḍe 'to hollow'	(1363)
kudaḍɨ	log of wood	Ta. kuṟaṭu	
		Ka. koṟaḍu	(1528)
tudɛ	river	Ta. tuṟai	
		Ka. toṟe	(2773)
pugɛ	smoke	Ta. pukai	
		Ka. poge	(3483)
tugalɨ	skin	Ta. tukal	
		Ka. togal	(2937)
mudalɛ	crocodile	Ta. mutalai	
		Ka. mosaḷe	(4055)
muḷe	to sprout	Ta. muḷai	
		Ka. moḷe	(4100)
puḍɛ	edge	Ta. puṭai	
		Ha. hoḍe	(3496)
odagɨ	to be of use	Ta. utavu 'help'	
		Ka. odavu 'help'	(522)
koraḷɨ	ear of corn	Ta. kural	
		Ha. koraḷu	(1478)
kore	to bark	Ta. kurai	
		Ha. kore	(1496)
noga	yoke	Ta. nukam	
		Ka. noga	(3061)
pogaḷɨ	to praise	Ta. pukaḻ	
		Ka. pogaḻ	(3478)
poḍakɨ	to roll	Ma. puḷayuka 'to wriggle'	
		Ka. poḷe 'to roll'	(3545)

In the above etymas Tulu shows all the four vowels *i, e, u* and *o* whereas Kannada shows *e* and *o* only and Tamil shows vowels *i* and *u* only. This clearly shows that Tulu retains the earlier contrast as against Kannada and Tamil.

Footnotes:

1. Material for Tulu comes from the following informants:

1.	Sivaḷḷi[1] dialect:	Sri M. A. BHATTA, Siromani, *Yelluru.* (Udupi)
2.	Sapaliga dialect:	Sri Raju T. SAPALIGA, *Hiredka.* (Udupi)
3.	Jain[1] dialect:	Sri Santraja AJIRI, *Karkal.*
4.	Jain[2] dialect:	Sri B. Nemiraja ARIGA, *Balanduru.* (Putturu)
5.	Setti dialect:	Sri Kocanna RAI, *Katukukke.* (Kasaragod)
6.	Holeya dialect:	Sri Coma DIKKA, *Nirchal.* (Kasaragod)
7.	Koraga dialect:	Sri Batya KORAGA, *Nirchal.* (Kasaragod)
8.	Sivaḷḷi[2] dialect:	Sri ADIGA, *Peradala.* (Kasaragod)

A thorough study of dialects 1 and 2 was undertaken. But the material for the remaining dialects was collected with the help of a short questionere containing about 1,500 words. Material for the other languages are taken from the Dravidian Etymological Dictionary (DED) of EMENEAU and BURROW. Abbreviations used are, PDr. : Proto-Dravidian; SDr. : South-Dravidian; Ka. : Kannada; Ta. : Tamil; Ma. : Malayalam; Te. : Telugu; Pa. : Parji; reference numbers given inside brackets at the right-hand side of the page are to DED. Ha. indicates Havyaka dialect of Kannada. Unless otherwise stated, the Tulu material presented in this paper comes from the Sivalli[1] dialect.

2. K. V. SUBBAYYA, *Primer of Dravidian Phonology,* Indian Antiquary, Vol. 38, pp. 167-70; Bh. KRISHNAMURTI, Telugu Verbal Bases, p. 245.

3. T. N. SRIKANTAIYA, *'The Mutation of i, u, e, and o in Kannada'* Proceedings of the Eighth All-India Oriental Confernece, Mysore, p. 773; L. V. R. AIYAR, *Materials for a sketch of Tulu Phonology, Indian Linguistics,* Vol 6. p. 432.

4. T. BURROW, *Dravidian Studies* II, Bulletin of the School of Oriental and Affrican Studies, vol. 10. p. 291; Bh. KRISHNAMURTI, *Alternations i/e and u/o in South Dravidian,* Language vol. 34 p. 461.

5. L. V. R. AIYAR, op. cit. p. 432. BURROW objects to this in his paper (op. cit. p. 290) and gives some counter examples, but there appear to be too many instances to support L. V. R. However, a more ditailed study is necessary to explain the exceptional cases.

6. For examples, see DED 2053 - 6, 2073, 2083, 2132, 2145, and 2286. For counter examples, see DED 2110, 2119, 2134 and 2288.

Perfect forms in the Taittirīya Brāhmaṇa

by

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The following concerns the frequency of perfect (and imperfect) forms in the Taittirīya Brāhmaṇa[1].

In a report [2]given before the American Philological Association, WHITNEY presented the imperfects and perfects in the individual Brāhmaṇas. Stating his scope he writes,[3] "I limit myself throughout, of course, to brāhmaṇa-material proper, or expository prose, to the exclusion of all mantra-material, whether metrical or non-metrical, and whether constituting part of a Brāhmaṇa or merely quoted in its text."

Accordingly he omitted from his statement for the Taittirīya Brāhmaṇa sections ii. 4-6, 8 and iii. 4-6 which, he considered, are mantra only; also omitted is iii. 7 which, he tells, contains no example of either tense.

The scheme of distribution is as follows:[4]

	impf.	perf.		impf.	perf.		impf.	perf.
i 1	159	0	i 8	17	0	iii. 3	17	2
2	19	0	ii. 1	94	0	8	36	1
3	51	0	2	264	2	9	55	1
4	77	0	3	155	8	10	7	26
5	139	7	7	54	1	11	27	21
6	86	0	iii. 1	104	0	12	61	2
7	36	0	2	63	.3			
							1521	74

1 This, slightly modified here, formed part of the author's Doctoral Dissertation submitted to and accepted for the Uuiversity of Texas, U.S.A. in 1962.

2 WHITNEY, W. D. "The Narrative Use of Imperfect and Perfect in the Brāhmaṇas," *Transactions of the American Philological Association* (1892), Vol. XXIII, pp. 5-34

3 *Ibid.*, p. 6.

4 *Ibid.*, p. 10.

These figures may be compared with those in the following (based on my own compilations)[5]:

	impf.	perf.		impf.	perf.		impf.	perf.
i.1	143	24	i.8	17	9	iii.3	20	106
2	27	13	ii.1	87	24	8	41	101
3	48	52	2	222	49	9	63	67
4	75	20	3	134	38	10	7	74
5	132	18	7	59	34	11	23	44
6	73	32	iii.1	73	40	12	93	34
7	31	91	2	55	186			
							1423	1056

These figures give all the occurrences of perfect forms. Of the 1056 occurrences, the form *āha* alone occurs 590 times. Next in order are *veda* in 236 occurrences and *āhuḥ* in 76 occurrences. I suspect that these, numbering 902 occurrences, may have not been counted by WHITNEY. From his statements I understand that he too included every occurrence of an individual perfect form. If we count every perfect form in its only occurrence, the figures for each section appear as in the following:

	perf.		perf.		perf.
i.1	3	i.8	2	iii.3	10
2	11	ii.1	4	8	5
3	3	2	4	9	4
4	6	3	7	10	16
5	7	7	19	11	12
6	5	iii.1	9	12	10
7	3	2	7		
					147

If we compare the figures for imperfect forms, our findings show consistently low figures to those of WHITNEY except for i.2, ii.7, iii.3, iii.8, iii.9 and iii.12.

The greater number of occurrences of imperfects are the following:

abhavat	97	āsīt	54	apaśyat	32	ajuhot	23
asṛjata	77	avapat	41	agṛhṇāt	25	āyan	22
abravīt	56	abruvan	34	atapyata	23	avindat	21

[5] A part of my compilation was made under a grant from the University of Texas Research Institute during the academic year 1959-60. I am greatly indebted to Dr. W. P. LEHMANN, Chairman of the Department of Germanic Languages, for providing me with this financial assistance, and for his encouragement.

The figures given for both perfects and imperfects include both the prefixed and the non-prefixed forms. But the casual imperfects are not included in the figure for imperfects.

We may now present the figures for sections that were not included by WHITNEY for reasons mentioned earlier.

	impf.	perf.		impf.	perf.
ii.4	20	42	iii.5	13	9
5	21	24	6	14	8
6	29	47	7	8	55
8	47	38			
				152	223

If only single occurrences of the individual perfect forms are counted, the number comes to 99.

I have used the following editions of the Taittirīya Brāhmaṇa for compiling this material. We do not know what edition WHITNEY used for his report on the Imperfect and Perfect forms in the various Brāhmaṇas.

1. Taittirīya Brāhmaṇa edited by Rajendralal MITRA;
2. Taittirīya Brāhmaṇa of Ānandāśrama Sanskrit Series, Vol. 37, parts 1-3;
3. Taittirīya Brāhmaṇa edited by R. Shama SASTRY.

The readings of 2. and 3. are preferred over 1, since the latter edition contains serious mistakes in marking of the accents and in the reading as evidenced by the Oral tradition.

List of perfect forms, with references to their occurrences, for sections included in WHITNEY's classifications.[6]

[The list does not include forms *āha* which occurs 590 times, *āhuḥ*, 76 times, and *veda*, 236 times. Prefixed forms are counted with regular forms. In each case, the accented forms are listed before the unaccented forms.]

ānaśé	1.1.7.2[7], 1.1.8.6
ānaśe	1.1.7.2 (2)[8], 1.1.8.6
āsa	3.11.8.1

[6] TAPA, Vol. XXIII, p. 10. This list supplements the table of perfect forms given in WHITNEY's article.

[7] The references are to the Taittirīya Brāhmaṇa. They may be read accordingly: the first figure refers to the Aṣṭaka 'book', the second to the Adhyāya 'chapter', the third to the Anuvāka 'section', and the fourth to the Mantra 'verse'.

[8] The figure in the parentheses means that the form occurs so many times in that section.

iyāya	3.10.9.11, 3.10.11.5, 3.12.3.3
īdhire	1.2.1.12
īyuḥ	1.6.1.1
uvāca	3.2.9.15, 3.8.6.3
uvāca	2.3.10.1, 2.3.10.3 (2), 3.8.6.5, 3.10.9.4, 3.10.9.5 (2), 3.10.9.11, 3.10.9.12, 3.10.9.13, 3.10.9.15 (2), 3.10.11.3 (2), 3.10.11.4, 3.10.11.5, 3.11.8.1 (2), 3.11.8.2 (2), 3.11.8.3, 3.11.8.4, 3.11.8.5 (4)
uvāsa	3.10.11.3, 3.11.8.3
ūcuḥ	1.5.9.1, 1.5.9.4, 3.10.9.9, 3.12.9.2
cakame	2.3.10.1 (2)
cakā'ra*	1.5.2.1, 1.6.1.4, 3.9.15.3, 3.10.9.10, 3.10.9.11, 3.10.11.4
cakrame	2.7.14.2, 3.1.2.6
cakrire	1.2.1.12, 2.7.12.6
cakrúḥ	2.7.12.6
cikye	3.11.9.3, 3.11.9.4
jagāma	3.10.9.9, 3.10.9.15, 3.11.8.3
jaghā'na	1.5.8.1
jaghnire	1.5.9.5, 1.5.9.6 (2)
jajā'na	2.7.7.1 (2), 2.7.7.2 (2)
jajñire	3.12.3.2, 3.12.3.3
jajñe	1.4.4.8, 3.12.9.7
jigāya	3.1.1.12
jighāya	3.10.9.3
jijīvima	2.2.7.3, 2.2.11.5
juhvé	3.3.7.6
tatāna	1.4.4.10
tatāna	1.2.1.23
tatā'ra	3.1.2.1

* Periphrastic perfect forms are also included.

tasthau	2.7.8.1
tepuḥ	2.7.18.3
dadúḥ	2.7.5.2
dadṛśe	2.1.2.9, 2.1.2.10, 2.7.12.2
dade	1.2.1.14, 3.10.11.4
dadau	2.3.10.3, 3.11.8.1
dadhire	1.2.1.12, 2.7.12.6
dadhe	3.11.9.3, 3.11.9.6, 3.11.9.7
dādhā'ra	3.3.5.2
dādhāra	1.4.5.5 (2), 3.2.8.3
dīdā'ya	3.11.6.3
duduhré	2.7.13.4
papāta	3.10.9.12
papraccha	3.10.9.3, 3.11.8.3
paprathe	3.3.9.10
babhū́va	1.2.1.22
babhūva	2.7.15.1, 3.1.1.5, 3.12.3.1, 3.12.3.3
babhūvátuḥ	1.2.1.2, 1.2.1.23
babhūvúḥ	2.7:15.4, 3.1.2.3
babhūvuḥ	3.8.3.4
bibheda	2.7.13.2
yayau	3.12.5.4
rarimā'	2.7.13.1
ruruce	3.11.4.2
ruróha	1.2.1.8
lilékha	2.7.17.3
vavárja	2.7.17.3
vavrāja	2.3.10.3
vavrire	3.2.5.4, 3.3.6.1

vavre	3.2.5.4, 3.3.6.1
vidúḥ	1.2.1.26, 1.4.1.2, 3.10.9.13, 3.10.9.14
viduḥ	1.5.2.2 (2), 3.1.1.8, 3.3.9.10
vidmá	3.1.1.7 (2)
viveśa	3.1.1.8, 3.11.6.4, 3.11.8.1
véttha	3.10.9.3 (2)
vettha	3.10.3.1
vetthā'^{3}	3.10.9.3 (2)
saścire	2.7.12.6
sasāda	1.7.10.2
sasāra	2.3.10.1
sedima	3.3.3.5
sedúḥ	3.10.9.14

List of perfect forms for sections not included in WHITNEY's Classification.

ānaśé	3.7.12.5
ārimá	3.7.12.2
āśúḥ	2.6.16.1
āsa	2.5.8.12, 2.8.4.7, 2.8.9.4
āha	2.4.6.7, 2.8.9.8, 3.7.1.3, 3.7.2.1, 3.7.3.6, 3.7.3.7 (6)
āhúḥ	3.7.7.1, 3.7.9.3 (2)
āhuḥ	2.8.8.3 (2)
īje	3.6.10.4
ūdimá	3.7.12.1
ūhathuḥ	2.8.7.9
ūhiṣe	2.4.1.9.
cakā'ra	2.4.7.9, 2.5.4.1, 3.7.12.3, 3.7.12.4
cakāra	2.4.3.5
cakára	3.7.12.3

cakara	2.8.3.6
cakṛmá	3.7.12.1, 3.7.12.6
cakṛmā'	2.4.4.8, 2.6.6.1 (3), 2.6.6.2, 3.7.12.1, 3.7.12.3, 3.7.12.5
cakṛṣe	3.5.7.1
cake	2.4.6.4
cakratuḥ	3.7.9.7
cakrame	2.4.3.5 (2), 2.4.6.1, 2. 5.5.4, 2.8.3.3
cakriré	2.8.8.7
cakrúḥ	2.5.8.10
cakruḥ	1.5.9.5, 2.8.1.1, 3.6.1.3
cakre	2.4.7.9
ciketa	2.8.6.2, 3.7.10.6
cikhyúḥ	2.8.2.2
cichidúḥ	3.7.13.1
cuścota	3.7.3.6, 3.7.3.7
jagāma	2.4.6.11
jagārā	3.7.12.3
jagmúḥ	2.6.1.3
jagmuḥ	2.4.3.11, 2.5.4.2
jaghā'na	2.6.8.1
jajā'na	2.5.2.1, 2.8.1.6, 2.8.4.7
jajāna	2.5.2.3, 2.6.4.3, 2.6.4.5
jajñátuḥ	2.8.1.1
jajñiré	2.4.8.5
jajñiṣe	2.4.7.5
jajñe	2.4.7.10
jabhāra	2.8.7.1
jabhrire	2.6.13.1
jahártha	2.5.3.1

jigā'ya	2.4.3.6
jigāya	2.4.7.5 (3)
jihiṃsimá	3.7.12.4
juhvé	2.5.4.3
tatakṣa	2.5.4.2
tatántha	3.6.10.5
tatantha	2.4.8.1, 2.8.3.1
tatarda	2.5.4.2
tatāna	2.4.2.6, 2.4.7.10, 2.5.2.3, 2.8.6.2
tasthatúḥ	2.4.5.7
tasthuḥ	2.4.6.8, 2.8.1.1, 2.8.6.2
tasthé	3.7.5.3
tātṛpúḥ	2.6.16.2
dadúḥ	2.4.4.7
dadṛśire	2.4.7.11
dadhātha	3.7.10.1
dadhire	2.4.5.6, 3.6.10.2, 3.7.14.1 (2), 3.7.14.2
dadhiṣe	3.5.7.1
dadhúḥ	2.6.13.2
dadhuḥ	2.6.4.1, 2.6.11.7, 2.6.12.2, 2.6.13.3, 2.6.14.1 (2) 2.6.14.2 (2), 2.6.14.3, 2.6.14.4, 2.6.18.1 (2), 2.6.18.2 (3), 2.6.18.3 (2), 2.6.18.4 (4), 2.6.19.1 (2), 2.6.19.2 (4)
dadhé	2.6.17.1, 2.8.9.6
dadhe	2.5.4.4
dādhāra	3.7.2.4, 3.7.2.5, 3.7.6.8
didīkṣé	3.7.14.1 (2)
duduhúḥ	3.7.13.1
duduhe	2.4.6.11
duduhre	2.8.6.6

paprathe	2.4.1.10, 2.4.6.9, 2.5.4.1
paprau	2.8.8.2
pipiṣe	2.5.4.4
pipéṣa	3.7.12.4
puposa	3.7.6.4
babhū́tha	2.4.7.10
babhū́va	2.8.9.6 (2), 3.7.10.4
babhūva	2.4.8.5, 2.5.1.3, 2.8.1.2, 2.8.4.3, 2.8.8.2, 3.5.7.1
babhūvathuḥ	3.5.7.2
babhūvúḥ	2.5.2.2
bibhidúḥ	3.7.13.1
bibheda	2.6.13.1
bibhyatuḥ	2.8.7.5
mamarśa	2.5.2.2
mamāda	2.5.8.9
māmṛje	3.7.12.5
yemire	3.7.1.1.
yemure	2.8.2.1
ruroja	2.4.7.6
ruroha	2.5.2.1, 2.5.5.2
vavartha	2.8.3.1
vavāra	2.6.8.1
vāvṛdhé	3.7.10.3
vāvṛdhe	3.5.6.1, 3.5.7.4, 3.5.7.5
viduḥ	2.8.8.6, 3.7.4.12
vidmā'	2.8.2.6
vivithse	2.5.4.3
vivéśa	2.4.5.7, 3.7.9.5, 3.7.10.2
viveśa	2.8.8.9

vivéṣa	2.6.9.1
véttha	3.7.2.5, 3.7.11.5 (2)
véda	2.8.9.6
veda	2.4.1.5, 2.4.8.7, 2.8.9.5, 2.8.9.6 (2)
védā	3.6.10.4
śaśamé	3.6.10.4
śiśriye	2.5.2.3
śiśléṣa	3.7.6.21
śekima	2.4.4.9 (2)
sasā'da	2.4.6.11
sasāda	2.6.5.1
sasādā	3.6.10.3
sasāhiṣe	2.6.9.1, 3.5.7.4
saścuḥ	2.4.5.2
séduḥ	2.4.3.9
seduḥ	2.5.8.3
suṣavuḥ	2.6.12.4
suṣāva	2.6.1.2

AN ACCENTUAL PROBLEM IN PĀṆINI AND THE VEDA APROPOS OF THE WORD *hāyana-*.*

by

M. D. BALASUBRAHMANYAM

1.1 *The Pāṇinian position*:

The word *hāyana-* is derived from the root *hā-* (to move and to abandon) to which is appended the primary derivational suffix *ṇyuṭ* (= bound morpheme *-ana*, P.3,1,147) and the vocable communicates the sense of 'rice (paddy)' and of 'time' according to the rule '*haś ca vrīhi-kālayoḥ*' (P.3,1,148).

BÖHTLINGK renders the sūtra (3,1,148) as under: "Dasselbe Suffix tritt auch an *hā-* zur Bezeichnung einer Reisart und eines Zeitabschnittes (Jahr)[1]"

The form *haḥ* in the same rule, is the abl.sg. of the root paradigm *hā-* which is elliptical for '*ohāṅ gatau*' (Dh.P. 1089) and '*ohāk tyāge*' (Dh.P. 1090). In other words, the root morpheme denotes √*hāṅ* 'to move' and √*hāk* 'to abandon' (both belonging to the 3rd conj., *Paras.* and *Ātm.*).

The indeclinable morpheme *ca* in the sūtra, quite in keeping with the characteristic *anuvṛtti* procedure of Pāṇini (P.), suggests that the *Kṛt* suffix *ṇyuṭ* should be supplied from the previous rule '*ṇyuṭ ca*', 3,1,147, to the present one (3,1,148) which will then read *'*haś ca*[2] *ṇyuṭ vrīhikālayoḥ*'.

The mute sound *ṇ* in *ṇyuṭ* designates the Ablaut substitution by *vṛddhi* (as per '*aco ñṇiti* P.7,2,115); but in the present context, this symbol indicates the addition of the augment *yuk* to the root which has a lengthened phoneme (*ā*) at the final position before the *ṇit-kṛt* suffix, and evidently *yuk* (= *-y-*) will be inserted between *hā-* and *-ana*, in accordance with the rule '*āto yuk ciṇ-kṛtoḥ*[3]' (P.7,3,33).

The prototpye *-yu-* of *ṇyuṭ* is replaced by the bound morpheme *-ana*, prescribed by P.7,1,1 (: *yuvor anākau*).

The gender signal *ṭ* cf the same suffix signifies the addition of the fem. affix *ṅīp* (= *ī*) taught by the rule '*ṭiḍḍhāṇañdvayasajdaghnajmātractayapṭhakṭhañka ñkvarpaḥ*[4]' (P.4,1,15).

The suffixation of the *kṛt* element *ṇyuṭ* to the nucleus *hā-y-* takes place when the agent noun, thus constructed, carries the sense of rice (*vrīhi-*) and of the notion of time (*kāla*). The sense of *vrīhi-* is derived from the root *hāk* (to abandon), since waters are released from the paddy and the idea of *kāla-* in turn, is drawn from the root *hāṅ* (to move) as substances are subjected to movement (*jahāti bhāvān* = *padārthān*: that which goes through all conditions[5]).

1.2. The grammatical process involved in arriving at the stem (*hāyana*) is arranged as follows:

√*hāṅ* / √*hāk* + *ṇyuṭ*	(*ṅyuṭ* added by 3,1,147-8)
= *hā*- 0 + *ṇyuṭ*	(*ṅ* & *k* of the root obtain invisibility[6] (*lopa*) by '*halantyam*': 1,3,3 & 9).
= *hā* + 0-*yu*-*ṭ*	(*ṇ* = 0 by '*cuṭū*': 1,3,7 & 9)
= *hā*- + 0-*yu*-0	(*ṭ* = 0 by 1,3, 3 & 9)
= *hā*- + *ana*	(-*ana* for *yu* by 7,1,1)
= *hā* + *yuk* + *ana*	(*yuk* added by 7,3,33)
= *hā* + *y*-0-0 + *ana*	(*u* in *yuk* = 0 by 1,3,2 & 9; k = 0 by 1,3,3 & 9)

= *hāyana*-.

hāyana + *su* (*su* by 4,1,2) = *hāyana* + *s* (*u* in *su* = 0 by 1,3,2 & 9) =

= *hāyana* + *r* (*ru* for *s* by 8,2,66 & *u* in *ru* = 0 by 1,3,2 & 9) =

hāyanaḥ (masc.nom.sg.) and *hāyanī* (fem.sg., *ṅīp* by 4,1,15).

1.3. The accent rule of P. (*pratyayaḥ*: 3,1,1; *paraś ca*: 3,1,2) '*ādyudāttaś ca*, 3, 1, 3, testifies to the general principle to be observed in suffixal accentuation that "a suffix (*pratyaya*) is what follows, and has a high-pitched initial vowel". Accordingly, the penultimate vowel receives the acute accent (*udātta*) in *hāyána*-. Thus, according to the Pāṇinian system of Primary suffixal accentuation, *hāyā'na*- can be said to have the function of a paroxytone.

2.1. *The Vedic data*:

The vocable is not attested in the *Ṛg* and *Sāma* Vedas, and it is mostly recorded in the *Śaunaka* and the *Paippalālāda* schools of the AV *Saṃhitā*. The *Maitrāyaṇī* and the *Kāṭhaka* recensions of the Black YV *Saṃhitā* have known the word only in the sense of *vrīhi*-. Among the *Brāhmaṇa* texts, *Śatapatha* is the only book in which *hāyana*- occurs once conveying the sense of a species of red-rice. In the AV(ś), *hāyaná*- is consistently translated as 'year (seasons, winter)' by Sāyaṇa and WHITNEY. The *Sūtra* literature refers to the word thrice.

The occurrence of *hāyaná*- exclusively as an oxytone in the extant accented Vedic texts[7], is tabulated as under:

A. *hāyaná-* : *year, winter* (*in the Atharva texts*):

vocable	*AV(Ś)*	*AV(Pai.)*	*Total No.*
hāyanáḥ	6.14.3; 19.39.10[a]	7.10.10; 19.13.9	4
hāyanā'ḥ	—	17.4.6[b]	1
hāyanám	—	1.32.5	1
hāyanā'n	3.10.9; 8.2.21; 11:8.17	15.4.2; 16.5.1	5
hāyanī́ḥ	12.1.36[c]	—	1

B. *hāyaná-*: *red rice* (*Black YV & ŚB*):

	Mai.S.[d]	*Kāṭha.S.*	ŚB[e]	
hāyanā'nām	2.6.6	15.5	5.3.3.6	3

C. *hāyana-*: *year and red rice* (*unaccented Sūtra texts*):

	Āg.GS	*Hi.Pitṛ.S*	*Kāt.Śr.S.*	
hāyanāḥ[f-1]	3.6.4	10.15 (year)	—	2
hāyanānām[f-2]	—	—	15.4.10 (red rice)	1

2.2. *hāyaná-* as '*year, winter*':

In the AV(Ś) the vocable occurs only as an oxytone in about five references: twice it appears in the masc.sg. and thrice in the acc.pl. The *ī-* ending paradigm is attested once. In the following quotations drawn from the AV(Ś[8]), the word retains the end-accentuation and signifies the notion of time:

(1) *hāyanáḥ* (year): "*átho íṭa-iva hāyanó ápa drāhy ávīrahā*" 6.14.3 cd: "Then, like the (last) year's bulrush, scud away, innocuous to heroes[9]". Sāyaṇa renders the unit as "*gataḥ saṃvatsaraḥ yathā na punar āvartate tathā. . .*"

(2) *hāyanáḥ* (winter, literally hibernal): "*śīrṣaśokám tṛ'tīyakaṃ sadandír yáś ca hāyanáḥ*" 19.39.10 ab: "The head-paining, the tertain, and that which is constant is hibernal". Sāyaṇa: "*hāyanaḥ kālas tavāvasthānāvalambanaḥ*".

(3) *hāyanā'n* (winters, days and nights): "*ṛtū́n yaja ṛtupátīn ārtavā'n utá hāyanā'n*" 3.10.9 ab: "I sacrifice to the seasons, the lords of the seasons, them of the seasons and the winters". According to the scholiast, although *samāḥ, saṃvatsarān* and *hāyanān* are synonymous, the last-mentioned word here, signifies 'days and nights' connected with a year (. . . *ete śabdā yady api samānārthās tathā apy atra hāyana-śabdena saṃvatsara-saṃbandhinaḥ ahorātrā lakṣyante*).

(4) *hāyanā'n* (years): "*śatáṃ te'yútaṃ hāyanā'n dvé yugé trī́ṇi catvā'ri kṛṇmaḥ*" 8.2.21 ab: "We make for thee a hundred, a myriad years, two periods three (and) four". Sāyaṇa: ". . . *śataṃ hāyanān* = *śatasaṃkhyān saṃvatsarān. 'śatāyuṣaḥ puruṣaḥ'* (*Tai.Br.*1.7.6.2)".

(5) *hāyanā'n* (winters): "*ṛtū́n brūma . . . hāyanā'n*" (Cf. 3.10.9 ab) 11.8.17 ab: "The seasons, we address . . . winters". The commentator writes: "*hāyanān samāḥ*

saṃvatsarān iti paryāya-śabdāś-cāndra-saura-sāvana-bhedena trividha-saṃvatsara-abhiprāyaḥ".

(6) *hāyanīḥ* (years, belonging to or lasting a year): "*ṛtávas te víhitā hāyanīr ahorātré Pṛthivi no duhātām*" 12.1.36 cd: "Let thy arranged seasons, years, let day and night, O Earth, yield milk to us".

2.21. *AV*(*Ś*) 12.1.36 cd — *an interpretational problem*:

Sāyaṇa's gloss is missing to the entire hymn (the *Bhūmi-Sūkta*). In his notes to the *Atharvan* passage, WHITNEY (W.) observes that "one would expect in c *hāyanā's* 'belonging to or constituting the year' and *Pai.* combining *hāyanā'horātre* favours that reading". GRIFFITH (G.) translates 12.1.36 cd as under: "May thy years, Pṛthivi and ordered seasons and day and night pour out for us in abundance".[10] Both W. and G., it appears, have attempted to present a plural sense for *duhātām* which is the imperative (Ātm.) 2nd p.dual of √*duh-* 'to milk'. BLOOMFIELD has read *hāyanīḥ* with *ṛtavaḥ* and renders it: 'yearly seasons'.[11] However, WACKERNAGEL(WAC.) in the *Altindische Grammatik* (AIG.) explains the meaning of *hāyanīḥ* in the above verse 'jährlich' (yearly, annual, adv. every year), and the word does not simply mean '*Jahr*'.[12] He has, of course, admitted that the rule 3, 1,147 was precisely formulated by P. in order that the affix ī must be attached to *hāyana-* to form the fem. paradigm.[12-a]

It becomes necessary, then, to accept *hāyanīḥ* as acc.pl. and *duhātām* as impv. (*Ātm.*) 2nd p. dual of the root *duh-* and, to avoid the grammatical incongruity arising from the above-mentioned translations, one can consider it plausible to render AV 12.1.36 cd thus: "O Earth, thy seasons are arranged (at your favourable disposal); let day and night milk out (complete) for us every year (*hāyanīḥ*)". This translation would possibly be justified, if the wish of the seer-poet (the author of the *Bhūmi-Sūkta* which, by reason of its poetic attractiveness, can be described as the national anthem of *Atharvāṇic* India) could represent the conception that the seasons, days and nights and years should continue in uninterrupted succession.[13] After all, to pray for longevity was a common *Anschauung* among Vedic people. Further, there existed at the origin of Vedism, the vigorous outbirst of hymns addressed to the *devatās* of the Vedic pantheon, praying for length of days, prosperity for the milk kine and crops, the boon of heroic children and for happiness.[13-a] Accordingly, the *Atharvan* verse '*ahorātre Pṛthivi naḥ hāyanīḥ duhātām*' (paraphrased) could be rendered as follows: "Let day and night, O Earth, milk (provide the desired ends) for us annually (per annum)".

2.3. *hāyaná- as red rice*:

In the sacrificial Vedic literature, the *Rājasūya* consisted of a series of *ekāhas*, alternating with *iṣṭis*, modified by the simple insertion of special rites such as the unction (*abhiṣeka-*) and others.[14] On the eve of the unction festival (the last *upasad-* day), various offerings are presented to a group of divine investigators (*devasū-*) who are eight in number: *gṛhapati Agni, vanaspati Soma, satyaprasava Savitṛ, paśupati Rudra,*

vācaspati Bṛhaspati, *jyeṣṭha Indra*, *satya Mitra* and *dharmapati Varuṇa*. Of these *devatās*, *Indra*, to whom is given the epithet *jyeṣṭha* (pre-eminent), is offered large rice (*mahāvrīhi-*) and red rice (*hāyana-*). The *śatapatha* passage [15] 5.3.3.6 (cited below) states that the cooked food of red rice should be offered to *Indra*, the pre-eminent: "*athéndrāya jyeṣṭhāya hāyanā'nām carum nirvapati, tád enam índra eva jyéṣṭho jyáiṣṭhyam abhi pariṇayaty, átha yád hāyanā'nām bhávaty, atiṣṭhā vā' etā óṣadhayo yád hāyanā', atiṣṭho vā' índras tásmād hāyanánāṃ bhavati*". Sāyaṇa comments: "*atha Indrāya iti. jyeṣṭhatva-guṇakāya Indrāya, 'hāyanānām' saṃvatsara-pakvānāṃ raktaśālīnāṃ 'caruṃ' nirvapet. saṃvatsarapakvānāṃ jyeṣṭhaguṇakendrayogyatvam upapādayati — 'atha yad hāyanānāṃ' iti. 'hāyanaḥ' saṃvatsarapakvā vrīhayaḥ iti*". From this passage, it will be seen that the distinctive feature of the crop (*hāyana-*) is its being *atiṣṭha-*, standing above, outgrowing other crops and, in this way, one can explain its connection with *Indra* who stands pre-eminent among all beings. Sāyaṇa refers to a year's duration for the ripening of the harvested paddy as much as it is fit to be offered to *Indra*.

The sense of red rice for this vocable is further attested in the *Maitrāyaṇī* and *Kāṭhaka Saṃhitās*, while referring to the *Rājasūya* consecration. According to *Mai.S.* 2.6.6: "*índrāya jyeṣṭhā'ya hāyanā'nām ékādaśakapālam*"[16] (= "*Indrāya jyeṣṭhāya hāyanānām ekādaśakapālo. . .*" *Kāṭha.S.*15.5),[16-a] the cake which is placed on eleven potsherds (*ekādaśakapāla-*) is made out of red rice and is offered to the pre-eminent *Indra*. In the *Kātyāyana śrauta Sūtra* (KśS) 15.4.10: "*hāyanānām Indrāya jyeṣṭhāya*",[17] the word occurs in the sense of red rice and the commentators Karkācārya and Yājñikadeva have adhered to the interpretation of the sacredotalists (*yājñikas*) who, after Sāyaṇa, maintain that *hāyana-* is a kind of red rice which takes a year's duration for ripening.[17-a] In the four passages cited above, *hāyana-* is, thus, described as a kind of crop producing red rice (*raktaśāli-* according to Sāyaṇa) and growing in a high altitude, it takes a year's duration for its ripening. WEBER has suggested, equating *hāyana* with Avestan *zayana-* (winter), that it is a sort of winter rice.[18]

While the sense of a species of red-rice[18-a] for the word is extended from the *Mai.S.* to the KśS., the *Āgniveśya Gṛhya Sūtra*[19] (*Āg.GS.*) 3.6.4 and the *Hiraṇyakeśi Pitṛmedha Sūtra*[20] (*HPS*) 10.15 have recorded the vocable to convey the idea of 'year, (*saṃvatsara-*) particularly in the latter *Sūtra* passage as interpreted by the commentator Gārgya Gopālayajvan.[20-a]

3.1. *Crux Criticorum:*

The afore-recorded textual citations, culled out from the extant accented Vedic texts in which *hāyana-* is registered, unmistakably treat the vocable as an oxytone. But the initial sound of the bound morpheme (*-ána*) receives the acute in *hāyána-*, on the basis of P.'s system of accentuation. The difference in the two systems apropos of the word *hāyana-* (P.'s paroxytone vis-a-vis the Vedic oxytone) seems to remain a *crux criticorum* in the twin fields of Pāṇinism and Vedism.

3.2. *The Indian Position*

Patañjali — whose verdict on P. is unimpeachable and whose *magnum opus* is a "scholastic investigation into the logical and factual correctness of P.'s formulations" — has maintained silence as regards the accentual difference in the two systems, and the *Mahābhāṣyam* to P.3,1,148 is unfortunately missing.

Sāyaṇa, who has attempted to do some justice for Vedic derivation and interpretation by the skilful application of P.'s presentational procedure, has, no doubt, derived *hāyana-* from the root *hā-* with the addition of the *kṛt* suffix *ṇyuṭ*, on the authority of P.3,1,148, in his glossarial notes[21] to AV(Ś) 3.10.9 ab. Nevertheless, the scholiast has not furnished sufficient annotation to account for the oxytonisation of the *Atharvan* vocable in comparison to P.'s paroxytonisation.

VASU has made an additional remark to his translation of P.3,1,148 (SK 2910) thus: "The accents are however different in the two. (*hāyánaḥ*: a kind of rice, and *hāyanáḥ*: a year). In one case the *udātta* is on the middle; in the other, on the last".[22] This suggestion leads one to conjecture whether the paroxytone conveys the sense of 'rice' and the oxytone is conditioned to the notion of 'time'. The incompatibleness of such an explanation can be proved by the Vedic data itself tabulated in 2.1. wherein the oxytone has already been testified to consist of the two meanings: 'rice' and 'year'.

Following VASU's intermediate observation, some take it for granted that the paroxytone, used in the sense of 'rice', might possibly be traced to the *Bhāṣā* which P. has often spoken of in the *Aṣṭādhyāyī*, since the oxytone signifying time, is attested in the AV (ś) *Saṃhitā* which, of course, dces not present the former shade in meaning. Such a contention sounds untenable. For, if the end-accentuation of the *Atharvan* vocable did not escape, as a matter of argument, from the attention of the eagle-eyed P., he (P.) might have possibly read another sūtra following 3,1,148 thus: *'*ṇyuc ca chandasi*' -whereof the accent symbol C in the suffix **ṇyuC* will take proper care of the *antodātta* of the *Atharvan* oxytone on the sanction of the accent rule '*citaḥ*' (P.6,1,163).

The above position is maintained by VISHVA BANDHU (VB) when he posits an arbitrary suffix **ṇyuc* in his marginal notes to *hāyana-*: "*hā gatau*' + *kartari ṇ-yu-C pratyayaḥ upasaṃkhyeyaḥ* (P.3,1,148)".[23] It is obvious that VB's predilection for ṇyuC in lieu of the Pāṇinian *ṇyuṭ* is intended to vindicate the oxytonisation of the word in the AV *Saṃhitā*.

3.3. *The Western position:*

In the absene of a precise accentual formulation, one might express a doubt whether P. recognised the *Atharvan* oxytone or not. GOLDSTÜCKER thought that there was no evidence to show that P. knew an AV.[24] But THIEME, the well-known Pāṇinist cum Vedologist, suggests that P. knew the AV "in a recension different from *Śaunaka's*".[25] The *taddhita* rule "*Śaunakādibhyaś Chandasi*" (P. 4,3,106) distinctly teaches the addition of the *taddhita* suffix *ṇini* after the words *Śaunaka-* and others in denoting *Chandas*: e.g. *śaunakinaḥ* will mean (the *śaunakas*) who study the *Chandas* as instructed by Śaunaka.

Among the Western Pāṇinists, BÖHTLINGK was probably the first person to have observed the dissimilarity in the accentual systems of P. and the AV: "*hāyána-, aber hāyaná- in den accentuirten Texten*".[26]

In his comments on the Avestan *Zayan-* (: *Zaēn-* m. 'winter' and *zayana-*[27] (adj. 'wintry, wintry time'), BARTHOLOMAE has conveyed a note that *zayana-* which is derived from *zayan-*, could be compared to Old Indian *hāyana-*.[27-a] The Avestan vocable has been equated with the Vedic *hāyaná-* by other Indo-Europeanists too.

Disagreeing with BRUGMAN's proposition that in the *-n* of *zayana-* is found a very old relic against which appears the gen.sg. of the word *zimō* (of the winters), SPECHT allows *zay-ana-* to be formed from the root *zay-* and the suffix *-ana*. Furthermore, he interprets the word as the rhyming- formation (*Reimbildung*) from its opposite *hamana* (summery, summer-like) where the construction of the suffix is in right order.[28]

This transference would have already occurred in the Indogermanic period, as shown by Old Indian *hāyaná-* 'year'. (Diese übertragung wāre dann, wie ai. *hāyaná-* 'Jahr' zeigt, schon zu idg. zeit eingetreten).[28-a]

MACDONELL[29] has pointed out that the Vedic suffix *-ana*, forming a large number of derivatives with action and agent types of meaning, shows a tendency to accent the root, though the penultimate is also accented in several substantives like *kir-áṇa-* m. 'dust', *kṛp-áṇa-* n. 'misery' (once in AV *kṛp-aṇá-* 'miserbale'), *daṃs-ána-* n. 'great deed', *vṛj-ána-* n. 'enclosure' (also *vṛ́j-ana-*), *veṣ-ána-* n. 'service', and the adjectives *tur-áṇa-* 'hastening', *dohána-* 'milking', *bhand-ána-* (VS. TS) 'rejoicing', *man-dna-* 'considerate', *mand-ána-* 'joyful' and *sakṣ-áṇa-* 'overcoming'. While *kṛpáṇa-* and *vṛjána-* (only to name a few) are neuter forming *nomina actionis, turáṇa-* and *kiráṇa-* form *nomina agentis*, the vowel phoneme remaining weak in both types.

WAC.[30] has drawn a few paroxytones in *-ána* from the *Saṃhitā* of ṚV (*mandánāḥ* 9.107.26 c, *sakṣáṇaḥ* 5.41.4 a, *manánāḥ* 9.70.3 d) and has made the remark: "Kaum vertreten ist die Paroxytonese". According to him, the paroxytone does not admit of any rule (Die Paroxytona lassen keine Regel zu).[30-a] Further, he treats *gāy-ána-* 'minstrel', 'bard' as a paroxytone, relying on P.3,1,147 (√*gai-* drawn from '*gas thakan*', P.3,1,146, forms with the *ṇyuṭ* suffix, 147, an agent noun *gāyanī* f., *gāyanaḥ* m. denoting an artist). The first occurrence of the vocable could be traced to the *Gopatha* (a *Brāhmaṇa* text of the AV) passage I.ii.7; 21: "*na uparīśāyī syān na gāyano na nartano na sarano na niṣṭīvet*" (7) and "*ya eṣa brāhmaṇo gāyano vā nartano vā bhavati, tam āglāgṛdha ity ācakṣate*"[31] (21).

Etymologically equating **h(a)yan-* with younger Avestan *zayan-* 'winter', WAC. thinks that the *Atharvan hāyaná- is a vṛddhi*-derivation from **hayan-*: "AV. *hāyaná-* 'Jahr' (P.3,1,148 *hāyána-* aus *hā-*) ist Vṛddhiableitung aus **h(a)yan* = jAw. *zayan-* 'Winter' ".[32] His opinion suggests two interesting problems which need investigation. First of all, the word *hayana-* should be discovered in the OIA texts in the

sense 'year'. Secondly, all available IE cognates for 'winter' should be taken into consideration to ascertain the distribution of phonemic correspondences in the languages concerned, before setting up a common hypothetical reconstructed IE base.

3.4. *hayana- in Lexicons*:

The word *hayana-* does not occur in the Vedic literature, but it is attested predominantly in the lexical texts. The well-known lexicographers—ROTH and BÖHTLINGK, M. WILLIAMS, H. H. WILSON and APTE — have recorded two meanings for the lexical form *hayana-* (i) m. 'year' and (ii) n. 'a covered carriage or a palanquin'. The word is derived from the root sememe *hi-* or *hay-* 'to go' to which is suffixed the *kṛt* element *l-yu-ṭ* to form an action noun, denoting a kind of sedan chair (*karṇīratha-*). [33]

Bhānujī Dīkṣit, the grandson of Bhaṭṭoji, points out under *Amara Kośa* II.8.52 (*karṇīrathaḥ pravahaṇaṃ ḍayanaṃ ca samaṃ trayam*) that *hayanam* is an alternate reading with *ḍayanam*: "*hayanam iti pāṭhe 'haya gatau'* (*bhvādi, Paras., Seṭ*). *lyuṭ* (P.3,3,117)". Maheśvara's *Śabdabhedaprakāśa* I.32 treats *hayanam* and *ḍayanam* as synonyms in the sense of a 'litter'[34] In four other lexicons—Keśava's *Kalpadrukośa*, Haricandrasena's *Paryāya-muktāvalī*, Yādavaprakāśa's *Vaijayantī* and Sundaragaṇi's *Śabda-ratnākara*,—the sense of *karṇīratha-* alone is predominantly published for the word.

In the gigantic *Sanskrit thesaurus* being prepared on historical linguistic principles by the Sanskrit Dictionary Department at Deccan College, Poona, under the editorship of Dr. S. M. KATRE, much spade work has already been carried out to marshal vocables from *kośas* like *Medinī*, *Śāsvata*, *Halāyudha*, *Viśvalocana*, *Viśvaprakāśa* and *Nānārthasaṃgraha;* and *hayana-* is not registered in these source-books on IA Lexicology. The same story is repeated in other lexical texts too: *Anekārtha- saṃgraha*, *Abhidhāna-cintāmaṇi*, *Nānārthārṇavasaṃkṣepa*, *Nāmamālā*, *Paryāyaratnamālā*, *Maṅkhakośa*, *Yugalakośa*, *Liṅgānuśāsana*, *Śabda- ratnasamanvayakośa* and BENFEY's *Chrestomathie aus Sanskrit- werken*. Thus, the vocable has not been reckoned by sixteen lexicographers; even in the five lexicons which have registered the vocable, the sense of 'year' (which has been notified for *hayana-* by ROTH and others) could not be determined. In fact. in these lexicons, the word denotes a kind of sedan chair (*eine Art sänfte*, PW, 1518) carried on the shoulders, a covered car or a palanquin.

3.5. *The Indo-European evidence*:[35]

WALDE,[35-a] POKORNY,[b] and BUCK[c] have collected the following corresponding words for 'winter'[d] in the principal IE languages: OIA *himá-* 'snow', *héman-* loc.sg. 'in winter', *hemantá-* 'winter', Av. *zima-* 'snow', *zayana-* 'wintry' (cf. Vedic *hāyaná-* 'year'), *zyam-*, *zaēn-*. Lith. *žiemà*, O.Sl. *zíma*, Arm. *jiun*,[e] 'snow', Grk. *kheîma* 'winter' (*schlechte Jahreszeit, Wintersturm*),[36] *kheimṓn* 'the powerful, active and menacing weather, (*kheimṓn* désigne la tempête, puissance active et menaçante),[37] or 'winter-weather', Lat. *hiems*[38] and O.Ir. *gim-red* 'winter'.[39]

A comparison of the initial sounds in the above list of words will further enhance the value of the phonetic principle by which IE linguists have already set up a reconstructed palatalised sonant aspirate (PIE) *ĝh- which is represented by *h-* in OIA, *kh-* in Grk., *h-* in Lat. and *z-* in Av.[40] As a matter of fact, the similarity of both form and meaning in the list of the IE cognates collected above, has enabled linguists to posit the Proto-root *ĝhei-* (: *ĝhi-* = 'winter, snow') on the one hand, while the reconstructed suffix-enlargements **-men/m̥/-ōm*, (for IE) or **-eno/ -ono* (for I.Ir.) could explain the derivation of the bound morphemes in the vocables enlisted, on the other. SPECHT has set up intermediary reconstructions such as **ĝheimnā*, **ĝhimnós* and **ĝhijom*,[41] on the basis of striking correspondences in the sets of IE words.

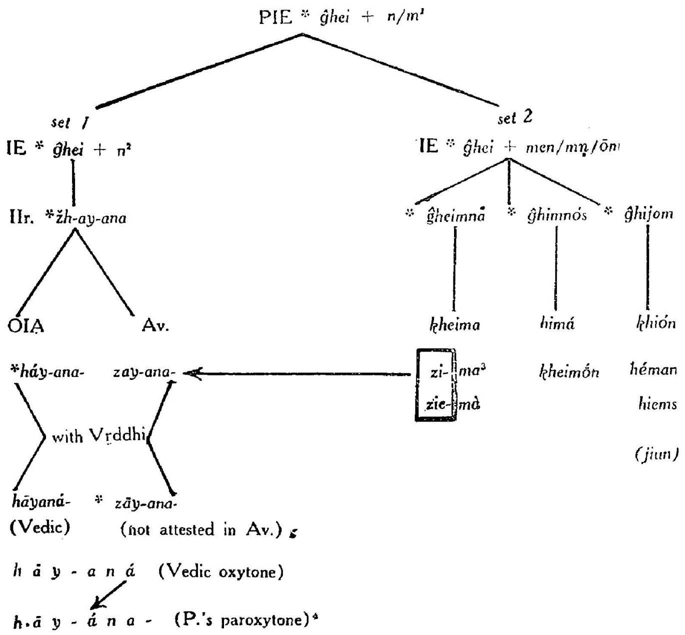
BRUGMANN[42] has shown that in the proethnic and later periods, the suffix *-men* was used to form *nomina actionis* and the fertility of the suffix is proved by OIA, Grk., and Lat. In OIA, the masc. *-man* stems are mostly oxytone and form action nouns with few agent nouns, as well. In Grk., words in *-mēn* and *-mōn*, also the neuters in *-ma*, "reflect IE *-men*, a conglutinate of *m* suffixes with the secondary *-en*".[43] The masc. substantives in *-mōn* (Grk.) are oxytones: e.g. *kheimṓn*, while the great majority of them are paroxytones; e.g. *ákmōn* 'anvil' (cf. Skt. *áśman* 'stone, sky').

The *-ana* suffix in Vedic *hāy-aná-* and Av. *zay-ana-* could be traced to IE **ono/ eno* which was a primary suffix, occurring mostly in participles and abstract nouns. *-ono* is an abstract suffix in Germanic infinitives formed with Pr.Germ. **-ana-m* (going back to IE * *-ono-m*) and it occurs as a participial suffix in IA.

POKORNY writes: "Zu * *ĝhei-* allein: av. *zayan-* m. 'Winter', n.Pers. *dai;* av. *zayana-* 'winterlich' und mit Vṛddhierung ai. *hā'yana-* 'jahrlich', *hāyaná-* m.n. 'Jahr'. (Reimbildung zu av. *hāmana-'sommerlich'*)".[44] His attempt to arrange Av. *hāmana-* and Vedic *hāyana-* as analogical formations on the basis of *Reimbildung*, is not very striking.

From the assemblage of words collected in the above-mentioned data with particular reference to the Indo-Iranian (which, by all means, forms a real sub-group in the larger IE family), a student of Comparative Method in Historical Linguistics would be legitimately tempted to reconstruct the Proto-IIr. *žh-ay-ana* as the base, from which might have sprung up OIA * *hayana-* (not attested in Vedic, but available only in lexicons) and the Av. *zayana-*. The IE * *ĝh-* which has previously been postulated, became *žh-*[45] in IIr. whenceforth sprouted OIA *h-* and Av. *z-*. The following steps might be proposed for Proto- IIr. in comparison to PIE development for words denoting winter (See chart).

CHART SHOWING WORDS FOR WINTER IN INDO-EUROPEAN



NOTES TO THE CHART

1 With *en/on/em/om* enlargements

2 With *eno/ono* enlargements

3 As far as the root-morpheme is concerned, it seems that O.Sl. *zi-ma* and Lith. *žie-mà* will belong to *set 1*, but the bound-morphemic evidence will suggest that the suffix *-ma* will fall in *set 2* (as far as these two words are concerned).

4 Due to shift of accent of a recessive type, the acute has fallen on the initial phoneme of the bound morpheme in P.'s time, while in the Vedic period, the end-acute of the suffix is in right order [cf. the oxytone in Gr. *kheimṓn*].

The difficulty in such a reconstruction lies in the fact that *hayana-* is not recorded in Vedic texts and even in the available lexicons, the sense of 'year' is missing. The characteristic absence of this form might, in all probability, allow the reconstruction to run on hypothetical grounds, unless one assumes that *hayana-* was probably a *lost Vedic vocable*, carrying the sense of '*winter*'.

3.6. *Is hāyana- a taddhita formation?*

Pursuing WAC.'s ingenious observation and the evidence furnished by IIr., on the one hand and the IE on the other, it might be suggested here that the word *hāyaná-* [AV(Ś)] is a *vṛddhi-derivation* from * *háyana-* (perhaps a lost Vedic word for 'winter') which is a barytone, since the accent symbol L in the suffix *L-yu-ṭ* indicates that the acute accent falls on the vowel immediately preceding the suffix, on the sanction of the rule '*liti*' (P.6,1,193). If the Pāṇinian *taddhita* suffix *aṇ* were to be appended to *háyana-* on the authority of the rule '*tatra bhavaḥ*' (P.4,3,54), *háyana* + *aṇ* would give us *hāyaná-* (in the sense of existing in winter, or wintry) where the oxytonisation is authenticated by P.3,1,3. Thus, the oxytone in the AV *Saṃhitā* could be justified by the application of the Pāṇinian procedure. The probable explanation for the paroxytonisation of *hāyána-* is that the final suffix-accentuation of the Vedic vocable had receded to the initial sound of the bound morpheme in P.'s time (due to the recessive accent-shift-phenomenon).

Taken as a *taddhita* formation, the oxytone might have originally meant 'belonging to winter or wintry' and subsequently, due to semantic shift, the time-idea which was closely associated with winter, split itself into two content-items (*year* and *rice*), as has already been attested in the Vedic texts [including ŚB.5.3.3.6, whereunder Sāyaṇa has pointed out that the *vrīhi* takes a year's duration for its ripening (*saṃvatsarapakvā vrīhayaḥ*)]. It is extremely refreshing to record here that P. was definitely aware of both content-items which were known to the Vedic seer-poets. But, it is surprising that P. *did not* treat the vocable as an *oxytone*. Neither did P. prescribe a separate rule for justifying the *antodātta* in *hāyaná-*, nor did he *describe it as a taddhita form*. According to his description, *hāyána-* is a primary derivative paradigm, and it is a paroxytone.

4.1. *Conclusion*:

The foregoing analysis of the accentuation of *hāyana-* in P. and the Vedic system will direct a critical student of Pāṇinism cum Vedism to the following careful considerations:—

(i) According to P.'s description, *hāyána-* is a primary derivative stem, conveying the sense of *vrīhi* and *kāla*, and the vocable is a paroxytone.

(ii) The vocable is *not* attested in the ṚV and SV *Saṃhitās*. In the other extant accented Vedic texts (*s.v.* 2.1), the word is oxytonised. The AV *Saṃhitā* knows *only* the sense of 'year' for the vocable; but the *Mai.S.*, *Kāṭha.S.* and the ŚB register the meaning of 'a species of red rice'.

(iii) *W*AC.'s suggestion is intended to make the *Atharvan hāyaná-* a *Vṛddhi-*derivation from *hayana-* = *zayana-*(Av.) 'winter'.

(iv) The IIr./IE evidence shows that *háyana-*, probably a lost Vedic vocable might have originally denoted 'winter' in the IIr. period; and *hāyaná-*, a secondary formation meaning 'wintry', due to semantic shift, subsequently gave rise to two related ideas (as proved by the Vedic texts) which had come to stay in P.'s time.

(v) The oxytone can be explained if the *Athavan paradigm* is taken as a taddhita formation, and in P.'s time, the accent had shifted from the final position to the initial of the suffix.

(vi) The two meanings conveyed by P. for the vocable is proved to the hilt, but P.'s accent system has not taken care of the oxytone of the recorded Vedic texts.

4.2. *Vyatyayo bahulam*:

It is extremely difficult to expect a final solution to the problem — P.s' paroxytone vis-a-vis Vedic oxytone.

Patañjali — the grammarian par excellence, while critically examining the sūtra '*tatpuruṣe kṛti bahulam*' (P.6,3,14)—has candidly admitted that the science of *Vyākaraṇam* is so encyclopædic in character as to incorporate in P.'s system the results of diverse discussions carried out in Vedic assemblies, that it is impossible to establish the singular, complete and perfect path of linguistic description: "*sarva-Veda-Pāriṣadaṃ hi idaṃ Śāstraṃ tatra na ekaḥ panthāḥ śakya āsthātum*".

P. teaches that in Sacred Literature (*Chandas*), the diverse interchange, of various *vikaraṇas* like *śap* and of the rest which have been previously ordained under special circumstances, is admissible (*vyatyayo bahulam*: P.3,1,85). Thus he concedes himself to the diversity in *Chandas*. Patañjali concisely states the significance of the sūtra (P.3,1,85) in a grammatical couplet:

> "*Sup-tiṅ-upagraha-liṅga-narāṇāṃ*
> *kāla-hal-ac-*SVARA*-kartṛ-yaṅāṃ ca /*
> *Vyatyayam icchati śāstrakṛd eṣāṃ*
> *So'pi na sidhyati bāhulakena*" //

Patañjali points out that the scientific teacher (P.), himself, admits many apparent irregularities in the language of the *Chandas* with regard to the application of case-suffides, of *the rules of accent,* of the suffixation, of the primary and secondary derivatives and of the rest.

The argument of the *Mahābhāṣyakāra, a priori*, has some weight. But, when the meanings *vrīhi-* and *kāla-* are unfolded in Vedic texts, it is difficult to explain the motive for P.'s departure from the *Atharvavedic* accentual pattern which has preserved the oxytone, besides the system maintained by the texts of the Black YV *Saṃhitā* and the *Śat. Brāhmaṇa.*

REFERENTIAL NOTES

* The writer of the paper acknowledges the general assistance he has received in its preparation from Dr. S. M. Katre (his research Professor) and Prof. K. A. S. Sastri. Dr. B. Schlerath of Frankfurt University deserves the writer's thanks for his useful suggestions on the IE evidence, and particularly for providing information from his *excerpts* (6,12,13 & 14) on the Av. *zayana-*.

1 *Pāṇini's Grammatik,* I 92. See Renou: "(Le suffixe ṇyuṭ vaut) aussi après la racine *hā-* 'aller; laisser', pour désigner a) du riz b) une notion de temps": *La Grammaire de Pāṇini,* I. 115.

2 '*cakāreṇa ṇyuṭ anukṛṣyate*': *Kāśikā* under P.3,1,148

3 *yuk* is augmented to a root-base in *ā* before the Aorist suffix *ciṇ,* and before a *kṛt* suffix marked with an indicatory *ñ* or *ṇ,* which carries *Vṛddhi* of the root-vowel.

4 The affix *ṅīp* is annexed to an *a*-ending paradigm when the affix has the indicatory *ṭa* or when other suffixes such as *ḍha* etc. follow to form the feminine.

5 "*hāko hāṅaś ca ṇyuṭ syāt vrīhau kāle ca kartari. jahāti udakam iti hāyano vrīhiḥ. jahāti bhāvān iti hāyano varṣam. jihīte prāpnoti iti vā*": (Bhaṭṭoji) *Sid.Kau.* SK 2910.

6 I have left the eliding (or the invisible) *it* sounds by 0 sign. For *Zero in Pāṇini,* see W. S. Allen, IL 16 (1955), 106-13 and M. D. Pandit, JMSUB XI (i), 53-66 (1962)

7 Vishva Bandhu (VB), *Vaidikapadānukramakoṣaḥ* (VPK), *Saṃhitās,* VI 3569-70 (1963), Hoshiarpur

7-a *hāyanam* — alternate reading (a.r.)

-b *hāyanāḥ, -nīḥ,* a.rs.

-c PW and Whitney read *hāyanāḥ*

-d *Mai.S.* 2.6.6. = *Kāṭha.S.* 15.5 = ŚB 5.3.3.6 = KŚS 15.4.10

-e VB, VPK (*Brāhmaṇas and Āraṇyakās*) II. 1128 (1936)

f-1 *ibid.* (*Vedāṅgas*) IV 2789 (1961)

f-2 *ibid.*

8 For the *Śaunakīya Atharvaveda* citations with Sāyaṇa's *Bhāṣya,* see VB's edn., V.I. Series 13-16, Hoshiarpur, 1960-2

9 I have adopted the translation, to this and other passages of the AV(Ś), of Whitney, vols. I & II, Indian edn., Delhi, 1962

10 *The hymns of the Atharvaveda,* II 98, Banaras, 1917

11 *Hymns of the Atharvaveda,* SBE XLII 203: "thy decreed yearly seasons, thy days and nights shall yield us milk'.

12 AIG II.2, p. 386

12-a *ibid,* p. 185

13 *Tai.Br.*3.7.5.8: "*ahorātré me kalpatām. ardhamāsā́ me kalpatām. mā́sā me . . . ṛtávo . . . saṃvatsaró me kalpatām*", R. Mitra's edn., p. 133, Calcutta, 1862

13-a Cf. AV(Ś) 12.1.63: "O Mother Earth (*bhūme mātaḥ*) do thou kindly set me down well-established (*mā bhadrāyā supratiṣṭhitam*) .. do thou set me in fortune (*śriyām*), in prosperity (*bhūtyām*). According to KEITH (RPVU, HOS 32, 480) and RENOU (*Religions of Ancient India*, 27, London, 1953), Vedic Ethics are based on this naive aspiration and are mainly concerned with length of days.

14 For details of offerings to the *devasū* Gods, see HEESTERMAN, *The Ancient Indian Royal Consecration*, 69-70, 's-Gravenhage, 1957

15 The ŚB. with the comm. of Sāyaṇa, Ed. Ācārya S. SAMASRAMI, Bibl. Ind., Calcutta, 1907, pp. 161-2 (text) and pp. 197-8 (Sāyaṇa's gloss).

16 *Mai.S.*, Ed. SATAVALEKAR, Aundh (1942), p. 145

16-a *Kāṭha.S.*, Ed. SATAVALEKAR, 1943, pp. 143-4

17 KŚS., Ed. Śri VIDYADHARASARMAN, Kāśi (1928), p. 61

17-a "*hāyanā raktaśālayaḥ. jahāti udakam ativṛcya iti hāyanaḥ* (P.3,1,148). *saṃvatsarapācino vrīhayo hāyanā iti yājñikāḥ*". See A. WEBER's edn. of the KŚS, with the extracts from the comms. of Karkācārya and Yājñikadeva, p. 876, Berlin, 1859.

18 *Über die Königsweihe, den Rājasūya*, 30, Berlin, 1893 quoted by HEESTERMAN, *op. cit.*

18-a AGRAWALA says that *hāyana-* is a kind of *vrīhi-* (the rainy crop which is not transplanted) and it is included by Caraka amongst the nine varieties of the well-known rice; See *India as known to Pāṇini*, 103, Lucknow 1953.

19 "*yam evaṃ nidadhyur, ya u ca enam evaṃ vidur, evam u ha ahīnā hāynā vā aśvattham nidadhyus, taṃ ha u evaṃ cakre, tasya ha ime ahīnā hāyanā śreyasī śreyasī hy asmai vasyasī vasyasī prajā bhavati*": Āg.GS., Ed. L. A. RAVIVARMA, Trivandram, 1940, p. 153.

20 "*taṃ ha evaṃ cakrur . . . tasya u ha eva ete ahīnā hāyanā. . .*" HPS, Ed. W. CALAND, Leipzig (1896), pp. 42-3

20-a "*tasya punar dahana-saṃskṛta-śarīrasya eva ete hāyanā saṃvatsarā ahīnā bhavanti, saphalā bhavanti* (* *iti*) *yāvat*": *ibid.*

21 "*jahāti jihate vā bhāvān iti hāyanaḥ. 'haś ca vrīhi-kālayoḥ'* (P.3,1,148) *iti ṇyuṭ*": VB's edn., I. 317.

22 *The Sid.Kau.* II 2, p. 41 and the *Aṣṭādhyāyī of Pāṇini*, I. 406, reprint edn., 1962

23 VPK (*Saṃhitās*) VI 3569

24 *Pāṇini- His place in Skt. Lit.*, 142

25 *Pāṇini and the Veda*, 66; 63-4 & 50

26 *Pāṇini's Grammatik* I. 92, Leipzig, 1887

27 "*dasa avathra māvaṅho zayana dva hāmana*": BARTHOLOMAE, *Altiranisches Wörterbuch*, 1666, Strasburg, 1904; See *Vendidad Sade* by H. BROCKHAUS, Leipzig (1850), p. 50

27-a "Ableit. aus *zayan-* ai.vgl. *hāyanā-* (mit Vṛddhiḥ) 1) Adj. 'jährlich' 2) n. Jahr"; *Altiran. Wört.*, 1666.

28 *Lateinisch hiems*, KZ 53 (1925), p. 307. Cf. BENVENISTE, MNHMH XAPIN (Mem. vol. P. Kretschmer) I p. 33 sq., 1956. Differently from SPECHT, BENVENISTE derives *zayana-* from *zayan-* with an *-a* enlargement. According to him, the words *zayan-* and *zaē̆n-* 'winter', given by BARTHOLOMAE, are simply graphic variants (*zaē̆na-* a graphemic writing for *zayana-*). Further he proposes two IE words for winter- *(i) *ĝhei-m/ĝhi-em* (Lat. *hiems*, Av. *zyam* 'winter as a hard time as it brings misery to men') and (ii) **ĝhei-on-* (Av. *zayan-*) 'winter as a season, as part of the year, without description, as opposed to summer'.

28-a SPECHT, *op.cit.*, f.n.

29 *Vedic Grammar*, 82-3 & 112-3, GIP, Strassburg, 1910; Cf. RENOU, *Grammaire de la langue Védique*, sect. 199.

30 AIG II 2, p. 182

30-a AIG II 2, p. 185

31 *Gop.Br.*, Ed. R. MITRA, Calcutta, 1872, pp. 27; 39; also D. GAASTRA's edn., pp. 38; 59, Leiden, 1919

32 AIG II 2, p. 182; Cf. CURTIUS, G., *Studien zur griechischen und lateinischen Grammatik*, V (1872), G. MEYER, p. 84: The IE root which is in Skt. *hi-* 'to thrive, to cast' with guṇa + suffix *na* = Av. *zae/na* ('winter', originally 'snow' = what is cast); guṇa + suffix *-ana* = Av. *zaē̆/na* 'winter', Skt. (with *Vṛddhi*) *hāyana-*.

33 "*hayanaṃ klī. (hayanti gacchanty anena iti. haya + lyuṭ) karṇīrathaḥ ity Amaraḥ tasya rūpāntaraṃ ḍayanam iti taṭ ṭīkāyāṃ Bharataḥ*": *Śabdakalpadruma*, 505; cf. *Vācaspatya*, VII 5416 & *Śabdārthacintāmaṇi*, 989 (*s.v. hayana-*).

34 "*ḍayante vihāyasā yānty anena ḍayanam. vimānākhyaṃ vihāyogatiś ca. haya harya klāntau ca* (Hem. Dh.P. I 397-8). *cakārād gatau. hayanti yānty anena hayanam. ubhayatra api karaṇādhāre ity anaṭ*": (Hem. *Śabdānuśāsanam*, V.3.129); Cf. Jñānavimalagaṇi's comm. to *Śabdabhedaprakāśa*, I.32, Ed. BENDER, Leipzig, 1940, p. 21.

35 Note the following abbreviations: VWIS (*Vergleichen des Wörterbuch der Indogermanischen Sprachen*); IEW (*Indogermanisches etymologisches Wörterbuch*); DSS (*A Dictionary of select synonyms in the principal IE langs.*); UID (*Der Ursprung der Indogermanischen Deklination*); *FNGA* (*La formation des noms en grec ancien*) and RIGN (*A Reverse Index of Greek nouns and adjectives*).

35-a VWIS I. 546-7 (1930)

-b IEW I. 425 (1959)

-c DSS 14.74, Chicago, 1949

-d SPECHT, F., UID 14, Göttingen, 1947

-e According to J. SCHEFTELOWITZ, (BB 28,1904, p. 299) Arm. *jiun* 'winter' goes back to IE **ĝhiyon*=Grk. *khión*.

36 VWIS, 546

37 CHANTRAINE thinks that the distinction between *kheimṓn* and *kheĩma* is hard to define. The former designates the powerful, active and menacing weather or tempest, and the latter would rather represent the name of the winter season (*kheĩma* est plutôt le nom de la saison d'hiver). But the opposition in sense is not very firm. Cf. Homer's *Odyssey*: "*hóte tis kheimṓn ékhpaglos óroito*", 522, but "*allá me kheĩma dámnatai . . .*", 487. See FNGA, pp. 181-2, Paris, 1933.

38 SPECHT writes: "According to me the root should have been *ĝhei-which presupposes in its weakest form in Grk. *khiṓn* or with later transformation in Av. *zyā*. That *khiṓn* in its consonant actually originates from *m* and has glided into *n* can be shown to be a proof, from the location of the Grk. word *aiḗn* to *aiṓn* . . . which had originally the *e* and should have been in IE **ĝhiemi* or *ĝhjemi* and that compares to the transformed form in Lat. *hieme*". KZ 53, 308

39 BURROW, T. *Sanskrit Language,* 72 (where *kheimōn* is wrongly accented on the initial sound); also in p. 102.

40 "KOZLOVSKY, *Arch. Slav. Phil.* 11, 383 ff., lehrt die Entsprechnung von ai. *h,* gr. *kh,* lat. *h* mit asl. *ch* aus ig. stimmlosen Velarum oder gutturalem Spiranten; ähnlich Fortunatov, *Arch. Slav. Phil.* 12.97": AIG I p. 249; Also KZ. 23 (1877), p.393 where HUBSCHMANN gives a list of words with Skt. *h* = Av. *z* = IE **ĝh*.

41 "Lit. *žiemà,* abulg. *zima* aus **ĝheimnā,* ai. *himâ-* aus **ĝhimnós* sind regelrechte Ableitungen zu dem *men-* Stamm in griech. *khe͂ima, kheimṓn*": UID, p. 14; "so verbleiben das wort für 'Winter, Schnee', av. *zyā*. Gen. Sg. *zəmō,* griech. *khiōn,* lat. *hiems,* arm. *jiun* aus **ĝhijom*": UID, p. 330.

42 For *-men* suffix, see A *Comp. Gr. of the Ind. Germ. Langs.,* II, 1, sect. 117

43 BUCH and PETERSEN, RIGN 216, Chicago

44 IEW I. 425; Both WALDE and POKORNY have wrongly marked the acute in the initial vowel in OIA *hāyana-*. For SPECHT's *Reimbildung* – theory, see Note 28.

45 See sets 42 and 43 in Indo-Aryan Reconstruction by A.M. GHATAGE in *Historical Linguistics and Indo-Aryan languages,* 82-3, University of Bombay, 1962.

MADHU-DRINKING

AN INTERESTING EPISODE AND PROBLEM FROM THE RAMAYANA

G. V. BAPAT

The Rāmāyaṇa, like other authentic epics, contains much to interest and even intrigue the careful reader. The authentic epic which is largely descriptive and narrative in character, concerns itself with life as it was led long ago and, despite poetic touches and interpolations, has a foundation in fact. As such, it touches upon, and sometimes brilliantly illuminates, various facets of life in pre-historic times. Even after making due allowances for exaggeration indulged in by the poet, the reader finds much to think over and it is not of literary interest alone. The scientist too would find much to claim serious attention from him. The Madhuvana (Madhu-forest or Madhu-wood reserve) incident in the Ramayana is an intriguing problem particularly for the apiculturist. The present writer is no expert, but he hopes that his attempt to outline the problem will serve as a spring-board for speculaion by experts.

In Cantos 61 and 62 of the Sundarakāṇḍa of the RAMAYANA the poet Vālmīki states that Vānaras (literally, monkeys or men resembling monkeys) belonging to the search party led by Prince Aṅgada, forced an entry into the forest-reserve known as Madhuvana. There they ate and drank Madhu as a result of which they got intoxicated. The poet graphically describes the actions of the inebriated Vānaras.

The problem that the incident poses arises over the exact meaning of the term *madhu, as used by the poet.* What, precisely, was the substance which caused the intoxication? *Madhu* is a term used to signify: (1) the nectar of flowers, (2) honey, (3) spirituous liquor. Discarding the first of these meanings as it does not suit the context, we have to choose one of the other two, namely, honey and spirituous liquor.

It is very tempting to take *madhu* to mean an alcoholic drink, perhaps prepared from honey, and dismiss the matter. The intoxication caused by the substance would strongly support such a supposition. However, an alcoholic drink prepared from honey is more usually referred to as *madhvi* and not as *madhu*, the word *madhvi* being, grammatically, a derivative of *madhu*. The poet himself later refers to a few alcoholic drinks among which we find *madhvika* but neither *madhvi* nor *madhu*. Madhvika is defined as a liquor distilled from the blossoms of the *madhuka* tree. Moreover, the poet always uses the plural number of the word Madhu whereas he could have used the singular with facility. This would indicate that the plural form had, at least for the

poet, a special connotation. The problem is further complicated by the poet's assertion that the Vānaras *ate the roots.*

If, however, *madhu* is taken to mean honey, the elation if the marauding Vānaras would be very difficult to understand and account for. Honey in small quantities is prescribed by practitioners of Ayurvedic medicine and is not known to cause any intoxication, while its effects on the system when it is taken in massive doses are not widely known, because no one takes such large quantities as the Vānaras are said to have done. As against this, the *Tilaka* commentary on the RAMAYANA interprets *madhu* as honey. As the poet says, the Vānaras *ate the roots*, and this may be accepted as correct if, as is said, parts of the beehive are eaten by aborigines, be true. "Roots" would, then, refer to the edible parts of the hive. As for the poet's consistent use of the plural number of *madhu* in this connection, it may be pointed out that used this way, the word means a beehive and not an alcoholic drink as is clear from internal evidence. So we have much evidence in support of the conjecture that the Vānaras swallowed honey and not an alcoholic drink, but then we have to account for the intoxication. Whichever meaning the reader accepts, he has to explain away discrepancies. A very intriguing problem indeed. This is where the scientist should come in and look for hints. A few of these may be indicated here.

The poet's beautiful descriptions of the seasons, of nature and of topography may provide the scientist with material on which to work though, of course, he would find himself face to face with other problems too. He might, for instance, have to fix the exact connotation of "Vānara". He might have to determine the location of Madhuvana, determine the season of the year, identify the flora etc. Some information, however, is available in the text on these points.

The details in the Kiṣkindhākāṇḍa would indicate that Madhuvana was located in a region west of the Ganges, east of Saurashtra, south of the Mleccha and Pulinda principalities and north of the Vindhya ranges. This is only a broad statement, but reference to the original text might be of help to the curious.

From the text it seems that the time at which the episode took place was towards the close of the rains and in, or about, Mārgaśirṣa of the Hindu calendar. There are many references which would help the scholar to determine the time with fairly great accuracy. The poet's reference to a number of plants would prove interesting to the botanist and enable him to form an idea as to the type of honey which the bees were able to gather and store up.

In cantos 28 and 30 of Kiṣkindhākāṇḍa, there are many references to bees, and they may be discussed in some detail here. It may be remarked that the poet makes a clear distinction between the big, steel-blue bumble-bee so common in India, and the honey-bee. In referring to the bumble-bee, he uses words which, in English mean six-legged, while he refers to the honey-bee as "honey-maker". The big bees show a distinct partiality for the ripe, luscious, dark-blue *jambu* fruit, the ripe mango fruit

and for *kadamba* blosscms. A very significant point is that the poet speaks of the bees as being intoxicated by their deep draughts of the nectar of flowers. This point will be referred to a little later. In the charming description of the rains, the poet refers to trees in flower as being full of bees, the distinction between the six-legged ones and the honey-makers being maintained.

All these details, read with Dr. G. B. DEODIKAR's remarks in his paper: SOME ASPECTS OF BEE BOTANY suggest conjectures which, if found valid, would establish that *madhu* does mean honey and, more important still, honey of a special kind. Dr. DEODIKAR asserts that toxic ingredients may be present in "Nectars and pollen grains of poisonous plants" and that bees foraging on their flowers may get killdd. He also says that certain poisonous plants may not affect bees a tall, but consumption of the honey collected from such plants may have deleterous effects on human beings and may cause even death. Could it have been possible, one wonders, that the people of the poet's day knew of honey collected from certain plants, which would intoxicate but cause no further harm? The speific mention of a forest reserve for the purpose of cultivating such honey seems to be nearer fact than fiction in that case.

The behaviour of the Vānaras affected by the drink is, again, of pathological interest, even though to the student of literature it provides mere comic relief. The poet tells us that the Vānaras "ate fragrant fruits and roots"; he does not mention the names of the fruits and roots though in view of his capacity for detail, he could easily have done be taken to refer to certain edible portions of bee-hives. Forcing their way into the reserved area, the Vānaras held bee-hives large as *droṇa* (a measure of capacity, or a wooden vessel or a bucket) in their arms (nct hands) and, gathering in large groups, happily drank the honey. Some of them ate, while others flung away, portions of the hives. They hit one another with the leftovers, an action suggestive of not only inebriation but also satiation. When intoxicated, the Vānaras danced, sang, laughed, bowed, repeated what they had learnt by heart, moved from place to place, jumped, babbled, sought each other's company, quarrelled, jumped from tree to tree, chattered, flung down stones, sang, jeered at the singers, wept, struck and pushed one another, lay down on beds of leaves, sat down and made a noise. Of great interest, again, is another point that the poet mentions. The riotous crowd had dealt roughly with the keepers. Their head, therefore, went to the king and made a report. The king sent him back with a message to the noisy fellows. In the mentime, the latter had become sober and when the head-keeper returned, he found them, as the poet says, passing urine containing elements from the *madhu*.

Here is, thus, a very interesting problem for specialists. What did the Vānaras drink? If it was spiritous liquor, textual evidence which goes contrary to the assumption will have to be reconciled. If it was honey, it would appear that it was a very special variety of honey.

If the assumption that it was honey that the Vānaras drank, is proved correct, it would mean that apiculture was in an advanced state in the poet's day. Special centres seem to have been established for the purpose and specialists employed there. The effects of honey on the system had been pretty closely studied. It would seem that honey-drinking was rather the exception than the rule. It is also possible that different types of honey collected from different plants could be collected by the experts of those days. Perhaps, apiculture was one of the arts of ancient India but it was lost in the course of time.

For the guidance of those who might be interested further, a list of the references is supplied in the appendix.

APPENDIX

References to the text of the RAMAYANA: The Ramayana of Valmiki with the Tilaka commentary of Rama: ed. by V. L. PANSIKAR, 3rd Ed., Nirnayasagar, Bombay, 1909.

Dictionaries used:	Amarakosha, Ed. V. N. JOSHI, Bombay, 1894. The Standard Sanskrit-English Dictionary, L. R. VAIDYA; 2nd Ed. Revised by Prof. PANSE, 1916 (Radhabai Atmaram Sagoon, Bombay.)
Dr. G. B. DEODIKAR: Director, M.A.C.S. Poona-4	Some Aspects of Bee Botany (Reprinted from Prof. S. P. Agharkar Commemoration Volume 1961, pp. 61-78.)
Shri V. D. VARTIKAR, Research Officer, M.A.C.S., Poona-4	Standard botanical names of some of the plants mentioned in the text of the RAMAYANA.
Location of Madhuvana and the capital of the Vānara king.	Kiṣkindhākāṇḍa of the Ramayana, Cantos 40 to 43.
The time of the year.	Kiṣkindhākāṇḍa of the Ramayana, Canto 23, verse 45; Canto 27, verses 47, 48; Canto 28, verses 54, 55; Canto 29, verse 52 and the commentator's remarks; Canto 33, verse 64.
Plants mentioned by the poet	Kiṣkindhākāṇḍa, Cantos 28-30
References to bees	Kiṣkindhākāṇḍa, Canto 28, verses 19, 30, 29, 42; Canto 30, verses 32, 52. Also see Canto 28, verses 30, 36 and Canto 30, verses 30, 56.
Honey bees	Sundarakāṇḍa, Canto 61, verse 13
Use of the plural of *madhu* with a special significance	Ayodhyākāṇḍa, Canto 56, verse 8.
Behaviour of the Vānaras	Sundarakāṇḍa, Canto 61, verses 13-24 " Canto 62, verses 9-15 " Canto 64, verse 4

BOTANICAL NAMES OF PLANTS MENTIONED IN THE RAMAYANA

SANSKRIT	TECHNICAL NAME
Kuṭaja	Holarrehena antidysenterica Wall Wrightia tinctoria R.Br.
Arjuna	Terminalia arjuna W. & A.
Ketaka	Pandamus Odoratissimus Linn.
Sarja	Boswellia Serrata Roxb.
Kadamba	Anthocephalus indicus A. Rich.
Jambu	Syzigium Cumini Skeels; (Eugenia jambolana)
Āmra	Magnifera indica Linn.
Nīpa	Anthocephalus indicus A. Rich.
Kalhāra	Nymphaea pubescens willd.
Kaṣa	Saccharum spontanium Mant.
Asana	Bridelia squamosa Gehrm.
Saptaparṇa	Alstonia scholaris R. Br.
Kovidāra	Bauhinia purpurea Linn. Bauhinia acuminata Linn.
Bandhujīva	Pentapetes phoenicea Linn.
Śalī	Oriza sativa Linn.

PATAÑJALI'S DEFINITION OF A WORD–AN INTERPRETATION*

by

S. D. Joshi

The definition of a word[1] is given at the commencement of the *Mahābhāṣya*. Patañjali, first of all, raises the question: "What then is this word 'cow' (*gauḥ*)?" To this he answers: "That—which, when uttered, brings us a knowledge of the object possessing dewlap, tail, hump, hooves and horns—is a word". Patañjali gives an alternative definition: "or *dhvani*: sound whose (*dhvani*) meaning is current in the popular language". is called *śabda*: 'word'.

Here arises the problem of interpreting the word *pratītapadārthakaḥ* (in the second definition). It becomes necessary to differentiate the two definitions; otherwise the use of the word *athavā* cannot be justified. Obviously, the first definition refers to the meaning-conveyer word, which, when uttered, brings about the notion of the thing meant. In other words, the first definition points out that a word in a grammatical system does not indicate any meaningless phonetic sequence, but it is that which is a significant unit. Here Patañjali lays emphasis on the semantic[2] aspect of language and his words *uccārita*: 'uttered' and *sampratyaya*: 'knowledge' suggest that an utterance is called *śabda* when the phonetic fact (utterance) is intimately associated with the semantic fact. Then Patañjali proceeds to contrast this sense of *śabda* with another sense of *śabda* which is accepted by laymen. He says: "*dhvani* (sound) is a popular term (*pratītapadārthakaḥ*) and it is called *śabda*; e.g. 'Make noise', 'Don't make noise', 'This boy is noisy'—"this is said when one makes a sound." According to the second definition any phonetic sequence is considered as a linguistic symbol (*śabda*) though it need not necessarily convey any meaning.

Both definitions are useful in a grammatical system. The rules on morphophonemics or on *vṛtti* (complex formation) deal with significant units, while the rules of euphonic combination deal with mere *dhvani*.

Pradīpa[3] while commenting upon the Bhāṣya, remarks that the first definition here is concerened with the *sphoṭa* word which is revealed by the pronunciation of sounds, while in the second definition, Patañjali does not differentiate *sphoṭa* from *dhvani*. But

*This is the revised version of a paper, originally submitted to the International Congress of Orientalists, New Delhi, 1964.

1 *Mahābhāṣya* Kielhorn's edn: I. p. 1. *atha gaur ity atra kaḥ śabdaḥ? yenoccāritena sāsnā-lāṅgūla-kakuda-khura-viṣāṇinām sampratyayo bhavati sa śabdaḥ. athavā pratītapadārthako loke dhvaniḥ śabda ity ucyate. tad yathā. śabdam kuru. mā śabdam kārṣīḥ. śabdakāry ayam māṇavaka iti. dhvanim kuruann evam ucyate. tasmād dhvaniḥ śabdaḥ.*

2 The theory of linguistic symbols by K. K. Raja, *The Adyar library Bulletin*, Vol. XX. P. 86.

3 *tad vyatiriktaḥ sphoṭo nādābhivyaṅgyo vācako vistareṇa vākyapadīye vyavasthāpitaḥ.* Nirnayasāgara edn. p. 16. *antyatra dhvanisphoṭayor bhedasya vyavasthāpitatvād ihābhedena vyavahāre'pi na doṣaḥ; ibid* p. 18

these ideas doubtlessly belong to the later grammarians[4] which they read in the Mahābhāṣya. Patañjali's conception of *sphoṭa* is quite different from that found in Bhartṛhari's *Vākyapadīya* or later works. The commentators on the Mahābhāṣya always assume that the theories developed later are already present in the Mahābhāṣya. While commenting on the second definition, Nāgeśa takes the *pratītapadārthaka* as *loke vyavahartṛṣu padārthabodhakatvena prasiddhaḥ*: "a word which is well-known as a meaning-bearing unit". But the real difficutly lies in the fact that the second definition, if interpreted as above, does not point out the contrast between the two definitions. It seems to me that Nāgeśa analyses the compound *pratītapdārthaka* as *pratītaḥ*[5] *padārtho yasmāt*: "an utterance from which meaning is understood". Both the definitions, according to Nāgeśa, refer to the meaning-conveyer-word. The presumption of the commentators is that *śabdānuśāsana* (the science of words) is not concerned with meaningless words, but always with meaningful words. Therefore, both definitions, according to them, must refer to the meaningful words. But, if this purpose can be served by a single definition, what can Patañjali's motive be in presenting a second definition, which represents the view accepted by a common man?

To distinguish the two definitions from each other, Prof. BROUGH[6] suggests an emendation of the text: *athavā apratītapadārthako loke dhvaniḥ śabdaḥ*. By this he understands a sound which is not a conveyer of the meaning is a *śabda*. Thus alternatively, the sound which itself does not convey the meaning is called *śabda*. The purpose behind BROUGH's re-reading of the text seems to me to differentiate between the two definitions. But BROUGH's emendation of the text suffers from a misunderstanding of the passage in the *Mahābhāṣya*. The second definition simply states that *dhvani* whose meaning is well-known in the world is called *śabda*. In other words, the word *dhvani* which is *pratītapadārthaka* can be comprehended by the ordinary man. Having this idea in mind, Patañjali exemplifies[7] his statement by showing that the term *dhvani* is popularly known: "Make a noise; don't make a noise; this boy is noisy." By the phrase *tad yathā*, Patañjali shows the popular usage of the term *dhvani* in his time. In this manner, we can distinguish the two definitions, thus: the first definition refers to the meaning conveyer-word (*arthasampratyāyakaḥ śabdaḥ*) and the second definition refers to the *dhvani* (the phonetic pattern of a word) whose meaning is self-evident as it is current among the masses. In other words, the first definition lays emphasis on the morphemic character of a word, while the second emphasises the phonetic character of a word.

The above argument can be supported by making reference to the usage of the collocation *pratītapadārthaka* in the third *āhnika* under Pāṇini 1.1.1. (vṛddhir ād aic):

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4 J. BROUGH, "Theories of general linguistics in the Sanskrit Grammarians", TPS. 1957, P. 32.

5 *Tattvāloka* on the *Uddyota*, Chowkhamba edn; 1954, P. 12.

6 "Theories of General Linguistics in the Sanskrit Grammarians," *TPS*. 1957, P. 32.

7 *Mahābhāṣya* 1. p. 1. See note 1.

dvayor hi pratītapadārthakayor loke viśeṣaṇaviśeṣyabhāvo bhavati na cādaic śabdaḥ pratītapadārthakaḥ: "The noun-adjective relation or syntactic relation of non-difference (*viśeṣaṇa-viśeṣya-bhāva*) takes place when both words are current in the language. But the word *ādaic* is not current." The word *pratītapadārthaka* is used by Patañjali[8] for the third time under Pāṇini 1.4.23 (*kārake*) where he states that the terms *paśu, apatya, devatā* are *pratītapadārthaka* while the artificial terms like *ṭi, ghu, bha, kāraka* are not *pratītapadārthaka*. Herein, it should be observed that while Patañjali speaks of *dhvani, paśu, apatya, devatā* etc. as *pratītapadārthaka*, he refers to *ādaic, ṭi, ghu, bha*, etc. as *na pratītapadārthakāḥ*.

If, according to the commentators the phrase *pratītapadārthaka* is to be analysed as *pratītaḥ padārtho yasmāt*: "from which meaning is understood" (i.e. meaning-bearer word), both the series *ādaic, ṭi, ghu, bha* and *dhvani, paśu, apatya, devatā* will be *pratītapadārthaka*, because some kind of meaning is understood from *ādaic, ṭi, ghu, bha*, and *dhvani, paśu* etc. Therefore, we must interpret *pratītapadārthaka* in such a way that it would stand for *dhvani. paśu, apatya*, etc., but would not refer to *ādaic, ṭi, ghu* etc. If we analyse *pratītapadārthaka* as *pratītaḥ padārtho yasya*: "whose meaning is well-known, i.e. current among the community who uses the language, this means that the words *dhvani, paśu, apatya* etc. are current and so they are *pratītapadārthaka*, while *ādaic, ṭi, ghu* etc. are not current and so they are not *pratītapadārthakāḥ*. Having thus fixed the meaning of *pratītapadārthaka*, if we interpret the Mahābhāṣya, the first definition refers to a significant word (meaning-bearing word) and the second definition refers to *dhvani* whose meaning need not be defined, since its meaning is current in popular usage (*pratītapadārthaka*). This is clearly suggested by Patañjali's phrases: *loke pratītapadārthaka* and *tad yathā* . . . etc.

The purpose behind Patañjali's reading the alternative definition lies in the fact that the grammatical rules operate with two kinds of words. Some rules operate with meaningful elements, e.g. the rules mentioned in the *aṅgādhikāra* or on *vṛttis*, while the rules of euphonic combination or the rules of *ṣatva* and *ṇatva* purely take into account sound element and so need not necessarily deal with meaningful units. Patañjali, unlike the Mīmāṃsakas, lays emphasis on the semantic aspect of word in the first definition by saying that an utterance is called a word (*śabda*) only when it has a meaning. But he does not totally discard the view of the Mīmāṃsakas. In his second definition he follows the orthodox Mīmāṃsā view that word is sound (i.e. an aggregate of letters) even if it does not convey any meaning.

The above contention can be exemplified, by making a reference to a few instances in the Mahābhāṣya, in which Patañjali uses the word *śabda* to denote the non-significant segment of the phonetic sequence. While discussing whether the indi-

8 *iha hi vyākaraṇe ye vaite loke pratītapadārthakāḥ śabdās tair nirdeśāḥ kriyante paśur apatyaṃ devate'ti yā vaitāḥ kṛtrimāḥ ṭighughabhasaṃjñāś tābhiḥ.*

vidual letters, in a word, have meaning or do not possess meaning, Patañjali[9] states: "He who considers that the meaning 'well' of the word *kūpa* is conveyed by the phoneme *k* (in the word *kūpa*), has to admit that the *śabda ūpa* (i.e. the segment *ūpa* of the word *kūpa*) is meaningless". In other words, Patañjali admits that the words *kūpa*, *sūpa* and *yūpa* are distinguished from each other by their initial single phonemes; nevertheless, the meaning is neither cognised through the distinctive phonemes *k*, *s* and *y* (in the words *kūpa*, *sūpa* and *yūpa*) nor through the identical segment *ūpa* of the said words. Here, Patañjali calls the sound-shape *ūpa* as a *śabda* even if it is the non-significant segment of the words *kūpa*, *sūpa* and *yūpa*.

Patañjali,[10] on Pāṇini, 1.1.20, uses the expression *śabdopajana*, which refers to the additional phonetic elements (*āgama*) like *-iṭ*, *-tuk*, *-num* etc. which are either inserted or added before or after the grammatical units. His expression *śabdopajana*, in the context, is synonymous with the expression *varṇopajana*[11] used by him in a similar context. These phonetic elements, technically known as *upajana* or *āgama*, do not have meaning in themselves. At this juncture, Patañjali's term *śabda* stands either for the single phoneme *i-* of *lavitā* in object language, or the non-significant segment *-iṭ* in the metalanguage. From this evidence, it is clear that the term *śabda*, according to Patañjali, is not necessarily limited to a significant unit of utterance.

Patañjali,[12] on the rule 1.1.44 makes a statement that the technical terms in grammar, convey the sound-shape of a word and not the meaning: e.g. the term *ghu* conveys the phonetic sequence *dā* and *dhā* and not their meaning. From the grammatical technical terms (*śabdasaṃjñā*), we understand that the phonetic sequence (*śabda*) is the same as the meaning of *śabda*. Here Patañjali's term *śabda* stands for the sound-shape keeping apart its semantic aspect. The twofold character of a word - semantic and phonetic - is even known to Pāṇini,[13] who makes a special rule: *svaṃ rūpaṃ śabdasyā'-śabdasaṃjñā*: "A word (in a grammatical system) denotes its own form (i.e. phonetic character) if it is not a technical term in the grammatical system". It means the word *agni*, when it is used in the rule, does not stand for the object fire but for the sequence *a-g-n-i*.

9 *Mahābhāṣya*, P. 32, L. 8-10, Vol.1.
yo hi manyate yaḥ kūpe kūpārthaḥ sa kakārasya . . . ūpaśabdas tu anarthakaḥ syāt.

10 *Mahābhāṣya*, P. 75, L. 7-10, *Vol. I. lavitā cikīrṣite'ti. yuktaṃ punar yan nityeṣu nāma śabdeṣu kūṭasthair avicālibhir varṇair bhavitavyaṃ anapāyopajanavikāribhiḥ. āgamaś ca nāmāpūrvaḥ śabdopajanaḥ.*

11 *Ibid*, P. 31, L. 17-18, *upajana āgamaḥ. lavitā lavitum. varṇopajano nārthopajanaḥ.*

12 *Ibid*, P. 101, L. 22-23, P. 102, L. I, Vol. 1.
śabdasaṃjñāyāṃ śabdasya saṃpratyayo bhavati nārthasya . . . dādhā ghv adāp (1.1.20.) *taraptamapau ghaḥ* (1.1.22.) *iti ghugrahaṇeṣu ghagrahaṇeṣu ca saṃpratyayo bhavati nārthasya.*

13 1.1.68.

Similarly Patañjali,[14] on the rule. 1.1.69, states: "When we do not grasp the *śabda* (i.e. phonetic shape of a word) we ask: what did you say? Meaning is apprehended through the phonetic form of a word". By this statement, he indicates that the knowledge of the linguistic form (*śabdasampratyaya*) is the necessary condition for the apprehension of meaning. In Patañjali's expression, *śabdasampratyaya* (opposed to *arthasampratyaya*), the word *śabda* stands for the phonetic aspect of a word as opposed to its semantic aspect. Bhartṛhari's *Mahābhāṣyapradīpikā*[15] the earliest available commentary on the Mahābhāṣya, interprets the second definition *athavā pratītapadārthako dhvaniḥ śabdaḥ* in the following words: "or current meaning of the term *śabda* is sound". In the next sentence, he explicitly says that *dhvani* (sound) is the denoted sense of the term *śabda*. Bhartṛhari, in the *Vākyapadīya*,[16] also points out the twofold aspect of a word. The first is the phonetic pattern of a word which forms the structure of expression, and the other is the semantic aspect of a word which represents the structure of content.

Kumārila,[17] unlike Patañjali, lays emphasis on the phonetic character of a word. He says: "The linguistic utterance, perceptible to the ear, is a word, even if it does not convey any meaning and the notion of a word-form occurs to the hearer, even before the meaning is understood."

Finally Maṇḍanamiśra, who is well-acquainted with the two definitions of a word given by Patañjali, comments on both the aspects of a word in his *Sphoṭasiddhi*. [18] He states: "In the popular language, the term *śabda* is used in connection with what is perceptible to the ear and, therefore, the fact of being audible should be considered as an essential character of a word. Then he gives an alternative but more important definition of a word, following Patañjali's first definition, thus: "A word[19] is that (which when uttered) causes the cognition of the notion of a thing signified."

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14 *Mahābhāṣya*, P. 176, L. 5-7. *Śabdapūrvako hy arthasya sampratyayaḥ. ātaś ca śabdapūrvako yo'pi hy asau āhūyate nāmnā, nāma yadā'nena nopalabdhaṃ bhavati tadā pṛcchati kiṃ bhavān āhe'ti.*

15 ABORI XLIII sup. p. 4 *athavā pratītapadārthaka iti śabda ity etasya pratītaḥ padārtho dhavniḥ. dhvanir asyābhidheyaḥ.*

16 *Vākyapadīya* I. 44. Banaras edn.
dvāv upādānaśabdeṣu śabdau śabdavido viduḥ /
eko nimittaṃ śabdānām aparo'rthe prayujyate //
"In an audible sound (upādānaśabda = nonjumbled sound), the grammarian recognises two types of a word. One causes to reveal (the phonetic form of) a word, while the other is used to express meaning".

17 *Ślokavārttika*, sphoṭavāda, verse 5:
tasmāc śrotraparicchinne yady arthaṃ gamayen na vā /
sarvathā tasya śabdatvaṃ lokasiddhaṃ na hīyate //
also verse 8:
na ca prāgarthavijñānāc śrotragrāhye na śabdadhīḥ/

18 *Sphoṭasiddhi*, Pondichery, pp. 73-74: *loke ca śrotrendriya-vijñeyamātrānupātinī śabdaśabdapravṛttiḥ ataḥ śravaṇagrahaṇataiva śabdalakṣaṇaṃ nyāyyam.*

19 *Ibid*, verse 3, P. 73.
arthāvasāyaprasavanimittaṃ śabda iṣyate.

In the preceding paragraphs, I have pointed out that Patañjali uses the term *śabda* several times, in the sense of non-significant segment of the phonetic utterance. I have quoted the views of later philosophers concerning the two different aspects of a word. Thus, the contrast between the two definitions can very well be pointed out, if we interpret them as first, referring to the semantic aspect of the word, and second the phonetic aspect of the word. This interpretation is supported by Patañjali's use of the term *śabda* in two different senses, the uniform use of the collocation *pratītapadārthaka* and the views of later Sanskṛt philosophers.

Patañjali, while raising the question 'what then is the word *gauḥ*', understands the difficulty in defining the term *śabda*. He seems to be aware of the fact that 'significance' is the chief characteristic of a word with respect to which the grammarians study the language. Pāṇini reads a list of morphemes in his *dhātupāṭha* and *gaṇapāṭha* and states the laws of their concatenation. Thus *śabdānuśāsana* (the grammatical system - a phrase used by Patañjali at the beginning of the Mahābhāṣya) attempts to analyse the significant forms of language. In fact, the meaningfulness of a word is of primary importance to a grammarian in the formation of words. Therefore, Patañjali defines the term *śabda* as a significant utterance. But he further realises that the grammarian's task is also partly concerned with the sequence of phonemes which may not correspond to significant morphemes. Therefore, the alternative non-semantic definition of word is not unrealistic, from the point of view of *śabdānuśāsana*.

Sūre duhitā'[*]

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The expression *sūre duhitā́* occurring in the ṚV. 1.34.5 (*triṣṭháṁ vāṁ sū́re duhitā'* (= *duhitā' ā'*) *ruhad rátham*) has attracted much attention. Two independent notes have been written on it — one by Bartholomae in Bezz. Beitr. 15. 1-2 (1889) and another by Pischel in Ved. Stud. 3.192-194 (1901). Both Bartholomae and Pischel refer to the views of earlier scholars like Benfey, Grassmann, Ludwig, Bergaigne, Richter and Brugmann. It is not necessary to restate here all that these scholars have said regarding this expression. It would be enough to say that the form *sū́re* has been considered either as loc. sg. from *sū́ra-* or as dat. or gen. sg. from *svàr-* both meaning 'sun'. It may be of some historical interest to know that Bartholomae wanted to treat the expression as one compound word *sū́reduhitā'* < *sūrazdhužhitā'*. In his view the separation of the compound into two words by the author of the Padapāṭha was a mistake.

As far as the form is concerned the more widely accepted view seems to be to consider *sū́re* as gen. sg. of *svàr-* showing an isolated case of external sandhi in *-e* (< *-az* < *-as*) instead of the expected *-o* before a voiced stop. To give a few references. Wackernagel, Alt. Gr. 1, p. XIX and § 285 bβ, p. 338, and 3 § 160d note p. 314, Renou, Gramm. Véd. § 137, p. 103[1], and W. S. Allen, Sandhi p. 71. This *sū́re* (gen. sg.) was naturally construed with *duhitā'* to mean 'the daughter of the sun'. In the first instance we have an exact parallel in *sū́ro duhitā́* (7.69.4) where the form and the meaning are not in doubt. Next, we have frequent mention of 'the daughter of the sun' choosing or mounting the chariot of Aśvinā. Thus *sū́ryasya duhitā'* 4.43.2 and *duhitā' sū́ryasya* 1.116.17, 1.117.13, 1.118.5, 6.63.5, *duhitā' vivasvátaḥ* Khila 1.3.2. The daughter of the sun[2] is also called *sūryā'*[3] who is similarly spoken of as mounting the chariot or being carried by the chariot of Aśvinā cf. 5.73.5, 4.44.1 (also 4.43.6, 6.63.6, 8.22.1 and Khila 1.2.5). Also cf. the sūryāsūkta 10.85.

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1 In his Histoire de la Langue Sanskrite, Renou had observed: On a même voulu voir mâgadhisme dans l'idiome *sū́re duhitā́* "la fille du soleil" (p. 30). On this see Mayrhofer IF 63.286, fn.3. He regrets the way Renou has made his remark and observes ". . . dass *sūre* den Sandhi *-az* > *-e* enthalte, der in den östlichen Dialekten später verallgemeinert wurde . . . lässt sich doch diskutieren."

2 The daughter of the sun is indirectly referred to as *vadhū́* 7.69.3, *yóṣaṇā* 8.8.10, *yóṣā* 1.119.5, *ūrjānī* 1.119.2, and *sūrí* 1.119.3. The 'three' in the chariot are mentioned in 4.45.1, 8.29.8. Mounting the chariot by sūryā is mentioned in a simile 1.167.5.

3 The identification of Sūryā is doubtful. Macdonell (Vedic Myth. p. 51) thought that she was no other than the sun himself conceived as a female. Hillebrandt did not like

Scholars who considered *sūre* to be dat. sg., however, took it to mean 'for the sake of the sun'. cf. Bergaigne "*La fille* est montée sur votre char *pour le soleil.*"[4] Those, except Oldenberg for whose opinion see below, who looked upon the form to be loc. sg. thought that the expression ultimately meant the same thing as with gen. sg. 'daughter of the sun'. Sāyaṇa[5] got this by simply noting that it was a case of *vibhaktivyatyaya* i.e. loc. standing for gen. (*sūre* = *sūryasya*). But Pischel wished to render it as 'die, die Tochter bei sūrya ist'[6], i.e. taking it to be a round about way of saying 'the daughter of the sun.' In fact, with regard to Bergaigne's feeling that it seemed impossible to construe *sūre duhitā́* as "La fille *du* soleil,"[7] Pischel asserted "Diese scheinbare Unmöglichkeit ist jedoch das einzig Richtige." (p. 193).

In spite of this assertion and the apparently compelling evidence cited above in favour of construing *sūre duhitā́* together meaning 'daughter of the sun', Oldenberg (Noten I 36-37) did not favour, and in my opinion rightly, this construction. He rather thought of separating the two and interpreting *sūre* as either loc. or dat. sg. He accepted the suggestion of Pischel to treat *sūre* as loc. but differed from him in rendering it: "euren Wagen bestieg bei Sūra die Tochter" (nämlich eben des S.). With dat. sg. he translated it as "euren Wagen bestieg um des Suar willen (ihm zu Gefallen? ihn zu fördern?) die Tochter" (nämlich eben des S.).[8]

I agree with Oldenberg in taking *sūre* as loc. sg., and with him and Bergaigne in separating syntactically *sūre* from *duhitā́*. In view of the fact that the context refers to the mounting of the chariot of Aśvinā and that elsewhere the daughter of the sun is clearly stated doing that, in the present case a simple *duhitā́* without the qualification *sūryasya* or *sūraḥ* will certainly convey the same meaning. "The daughter mounted the chariot of Aśvinā" would always mean that the daughter of the sun did it. There can be no ambiguity about it. As regards *sūre*, which I have separated from *duhitā*, I interpret it as standing for loc. abs. *sūre údite*. The full expression thus would be

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this idea and suggested that she was to be identified with Uṣas (Vedic Myth. I, 42-44, 61 and II, 399.) This was also the view of Yāska (12.7), Skandasvāmin (cf. his remark on Ṛv. 1.34.5 *tat-*(i.e. *sūrya-*) *prabhavāc coṣaso duhitṛvyapadeśaḥ / sūryasya duhitā uṣāḥ/*), and perhaps Hopkins (JAOS 15.270, f.n * 'The red is the dawn which mounts the Aśvins' car . . .'). Although Uṣas and Aśvinā are known for their close association the identification of Sūryā with Uṣas was contested by Oldenberg (Noten 2.53 on ṚV. 7.69.4). Geldner (in his translation) and Renou (Ét. Véd. et Pāṇ. 3.8 and 91 on ṚV. 7.75.5a) follow him.

4 La Religion Védique 2.490.

5 Also Mādhava *sūre sūrye . . . tasya duhitā*, and Skandasvāmin *ṣaṣṭhyarthe saptamī.*

6 He followed Brugmann's suggestion (IF 12.3) to derive manaāv-ī fem.) from mánau (loc. sg. mas.) meaning 'die bei (chez) Manu (seiende)'. Pischel's view that *sūre* is loc. sg. is in turn referred to by Brugmann IF 13.148-149, f.n.3.

7 La Religion Védique, 2.490, f.n.2.

8 This may be compared with the use of dative in (*rátham*) . . . *yám aśvinā . . . á sūryā́yai tasthā́thuḥ/* 8.22.1 "(den Wagen) . . . den ihr Aśvin, . . . für Sūryā bestiegen habt . . ." (Geldner).

sū́re [*údite*] *duhitā' ā' ruhad rátham*[9] "when the sun had risen, the daughter mounted the chariot". We may note in the first instance that the expression *sūra udite* occurs quite often in the Ṛgveda (3.15.2; 7.63.5; 7.65.1; 7.66.4,7,12; 8.1.29; 8.13.13; 8.27.21). Secondly, there are a few cases where a loc. *sūrye* has been interpreted as loc. abs. *sūrye udite* by Indian commentators and by Geldner. In ṚV. 1.135.3 we read the following:—

távāyáṁ bhāgá ṛtvíyaḥ sáraśmiḥ sū́rye sácā /

Here Sāyaṇa interprets *sūrye* = *sūrye udite*. cf. (*ayaṁ tava bhāgaḥ bhajanīyaḥ sūrye udite sati tasya raśmibhiḥ sacā saha saraśmir bhavati samānadīptir bhavati/yad vā taiḥ sahito bhavati/yataḥ sūrye udite sati raśmir bhavaty ataḥ/*. Also Mādhava: *udite sūrye/*. Geldner refers to Sāyaṇa and has similar interpretation: "Dies ist dein zeitgemässer Anteil, der bei (aufgehender) Sonne bestrahlte".

In ṚV. 4.31.5 where *ábhakṣi sū́rye sácā* occurs, Mādhava again renders it as *sūrye udite*. Geldner offers similar translation: "Ich habe meinen Anteil an der (aufgehenden) Sonne bekommen".[10] Sāyaṇa, however, has: *he Indra tvām ahaṁ sūrye sūryeṇa sacā saha abhakṣi bhaje.*

Oldenberg first remarked that whether we should regard *sū're* as loc. or dat. sg. could be decided if we had more exact knowledge of the mythology (Ob nun Dativ oder Lokativ könnte nur konkretere Kenntnis des Mythus, als wir besitzen, entscheiden). But then he also felt that ṚV 7.69.4 would perhaps show that the event of mounting the chariot of Aśvinā by Sūryā occurred at night 'for the sake of the sun', thus indicating his preference for the dative. In ṚV. 7.69.4 occurs the word *pa'ritakmyā* (for full citation see below) which Oldenberg took to mean 'night'.

Now in the first instance the meaning of *pa'ritakmyā* itself is not certain (See Mayrhofer's Kurz. Wört.). And on the other hand we have the following references to show that when Sūryā or the daughter of the sun mounts the chariot of Aśvinā, the horses (or the winged horses called the birds) yoked to their chariot rush to avoid the heat (of the sun), which means that the event did not occur at night but at sun-rise.

1. ṚV. 4.43.6:

síndhur ha vāṁ rasa'yā siñcad áśvān ghṛṇā' váyo 'ruṣā'saḥ pári gman/
tád ū ṣú vām ajiráṁ ceti yā'naṁ yéna pátī bhávathaḥ sūryā'yāḥ //

"Der Sindhu netzte zusammen mit der Rasā eure Rosse, die roten Vögel entgingen den Gluten. Diese eure rasche Fahrt ward hochberühmt, durch die ihr die Gatten der Sūryā wurdet." (Lüders, Varuṇa I. 139).

Geldner in his note on this verse says: "Sie (i.e. the winged horses) entgehen der Hitze, die das Rennen oder die Nähe der Tochter der Sonne verursachte". This is very doubtful. More running will cause more heat; and however fast the horses may run that will not help them to get away from Sūryā's heat once she had mounted the

9 It is not necessary to consider this as an instance of word haplology by adding *sū́ro* before *duhitā́*: **sū́re* [*u'dite sū́ro*] *duhitā́* > *sū're duhitā'*. See the remark on p. 72 about *duhitā* in this context meaning 'daughter of the sun'.

10 In view of the fact that in these two cases we get ***sū́rye sácā***, it is tempting to suggest that in the passage under discussion we understand ***sū́re*** to stand for ***sū́re sácā***.

chariot. The heat referred to is not that of Sūryā but of the sun, and the horses try to avoid it by running away swiftly from him ("Die sengende Glut hat sicherlich ihren Grund in der Nähe der Sonne". (Lüders, Varuṇa I. 139).

2. ṚV. 5.73. 5:

ā' yád vāṁ sūryā' ráthaṁ tíṣṭhad raghuṣyádaṁ sádā /
pári vām aruṣā' váyo ghṛṇā' varanta ātápaḥ //

"Stets, wenn die Sūryā euren rasch dahinfahrenden Wagen bestieg, hielten sich eure roten Vögel die Gluten ab. so dass sie nicht versengten." (Lüders, Varuṇa I. 139). The epithet *raghuṣyád* becomes significant since the chariot would be quick in getting away from the (sun's) heat.

3. ṚV. 7.69.4 (referred to by Oldenberg):

yuvóḥ śríyaṁ pári yóṣāvṛṇīta sū'ro duhitā' páritakmyāyām / yád devayántam ávathaḥ śácībhiḥ pári ghraṁsám omá'nā vāṁ va'yo gāt //

"The maiden chose your beauty over that of others (*pári*), the daughter of the sun .... When you helped the devoted one[11] with (your) strengths, the bird (i.e. the winged horse) of yours escaped with your help the heat (of the sun)."[12] (Weil ihr dem Gottergebenen mit euren Kräften halfet, ist euer Vogelgespann durch euren Schutz der Hitze entgangen—Lüders, Varuṇa I. 139 f.n.2. He does not give the translation of the first two quarters).

4. ṚV. 1.119.2 :

svádāmi gharmáṁ práti yanty ūtáya ā' vāṁ ūrjā'nī rátham aśvināruhat /

"I prepare (your) hot drink, your protections approach (me, the worshipper). Ūrjānī (i.e. Sūryā) has mounted your chariot, oh Aśvinā." The context of mounting the chariot clearly indicates that ūrjānī stands for Sūryā (cf. Sāyaṇa). One wonders why Geldner chooses to interpret it as 'die personifizierte úrj (Stärkung),' when in the following verse - *yád aśvinā váhathaḥ sūrím ā' váram* which he translates 'da ihr Aśvin die Herrin nach Wunsch fahret'—in sūrí he sees wordplay with Sūryā (also Oldenberg). The word *gharmá* clearly indicates that the verse refers to the pravargya which is offered in the forenoon and afternoon (*pūrvāhṇe* and *aparāhṇe*), and not at night.

All these references indicate that sūryā mounted the chariot of Aśvinā when the sun had appeared. This lends support to the interpretation of *sū́re= sū́re údite.*

In the end we will take note of an opinion expressed by Wilhelm Havers in his Untersuchungen zur Kasussyntax der indogermanischen Sprachen.[13] In this book he

11 Probably the one offering *pravargya,* cf. 1.119.2.

12 The translation follows Lüders. A different translation is proposed by H. D. Velankar, Indological Studies in Honor of W. Norman Brown, p. 235. He takes *váyaḥ* as the invigorating food of *Aśvinā.*

13 Strassburg, 1911.

illustrates mainly the use of the first and the second person pronominal forms *me* and *te* as Dativus Sympatheticus. His conclusion regarding the use of sympathetic dative as against the possessive genitive is that Sanskrit has very faithfully preserved the situation of the I.E. stage which was as follows: Sympathetic dative with the pronouns of the first and second person, genitive with all other pronouns, substantives and participles (p. 44). All instances collected by him also show that the use of sympathetic dative is *adverbial* ('ein zum Verbum des Satzes gehörender Dativ' p. 20) and not *adnominal*. He thus translates *dyáur me pitā́ janitā́* ṚV. 1.164.33 'der Himmel ist mir Vater und Erzeuger'[14] (p. 35, also 8), *sákhāyas ta indra viśváha syāma* 7.21.9 'dir, O Indra, mögen wir stets Freunde sein' (p. 36), *sapátnīṁ me párā dhama* 10.145.2 'blase mir die Nebenfrau hinweg' (p. 30, also p. 19).

It is therefore surprising that suddenly in *vṛ́ṣṇe sapátnī śúcaye sábandhū* ṚV. 3.1.10 Havers chooses an adnominal interpretation and translates (p. 36) 'die beiden Frauen des glänzenden Stiers'. The text clearly shows that the dative is adverbial and not used as possessive genitive. Havers should have translated the expression as Geldner, in fact, has done: "Die beiden Verwandten (Himmel und Erde) sind dem reinen Bullen seine geminsamen Frauen"[15]. The verb √*as-* or √*bhū-* has quite commonly to be supplied in such cases.

Since *vṛ́ṣṇe sapátnī* cannot be the proper instance of the use of the dative as possessive genitive, there can be no question of finding possible support for that construction as Havers feels to do (p. 36), in *sū́re duhitā́* (daughter of the sun). Havers refers to Oldenberg (Noten) and Keith, JRAS 1910. 471, foot note 1. We have already seen that Oldenberg no doubt prefers *sū́re* as dative, but he certainly does not interpret it as Havers chooses to do. Keith says that perhaps one may think that *sū́re*[16] is dative used as possessive genitive. But he has already remarked that this use of dative to indicate kinship relationship is not illustrated in Whitney's Sanskrit Grammar (pp. 95-96, 1889) and Speyer's Vedische und Sanskrit-Syntax (pp.13-15, 1896). One may add that this kind of dative is not noted for Vedic or Classical Sanskrit also by Pāṇini (2.3.12 ff. and Liebich, BB 10.214-217, 1886, for Ait. Br. BB 11. 284-288, 1886), Speyer, Sanskrit Syntax pp. 58-67, 1886, Delbrück, Alt. Syntax pp. 140-150, 1888 (earlier also Über den indogermanischen, speciell den vedischen Dativ KZ 18.81-106, 1869), Hopkins, The Vedic Dative Reconsidered, Trans. and Proc. APA 37. 87-120, 1906, Hopkins, Aspects of the Vedic Dative JAOS 28. 360-406, 1907, Macdonell, Vedic Grammar for Students pp. 310-315, 1916, Renou, Grammaire

14 Geldner apparently ignores the argument of Havers and translates in this and the following two passages *me* and *te* as genitive: "Der Himmel ist mein Vater, der Erzeuger", "Wir wollen allezeit deine Freunde sein, Indra", "blase meine Nebenbuhlerin fort".

15 H. Wenzel, to whom Havers refers, translates 'einem Manne vermält' (Über den Instrumentalis im Rigveda, Tübingen, 1879, p. 48). Havers' reference p. 47 to be corrected as p. 48.

16 Keith's reference 1.34.7 to be corrected as 1.34.5.

Sanscrite pp. 296-299, 1930, Grammaire de la Langue Védique pp. 348-350, 1952, Siddheshwar Varma, Syntax of the Dative Case in the Ṛgveda, (Ganganath) Jha Commemoration Volume pp. 435-456, 1937, and Gonda, The Unity of the Vedic Dative, Lingua 11. 141 - 150, 1962.

Since *vṛ́ṣṇe* is not the correct instance of the dative in the sense of genitive, and since there is no other parallel in Sanskrit for a similar use of the dative, the remark of Havers (p. 45) that "Nur bei Kategorie V (i.e. which concerns instances pertaining to human relationships) ist auch der symp. Dativ sonstiger Nomina ziemlich vertreten und zwar sogar in rein adnominaler Funktion" is not correct.

PĀṆINIAN IT-SAṂJÑĀ — A SYMBOLIC ZERO

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1. *INTRODUCTORY*:

One[1] of the most widely used, and hence favourite, techniques of Pāṇini is the *It-Saṁjñā* i.e. the technical term called '*it*'. The term is entirely devoid of any linguistic or social signification[2]; it conveys a purely technical meaning in Pāṇini's grammar. The term '*it*' is the name or label of the sound which Pāṇini lays down as '*it*'. The conditions under which the sounds or even sound-groups are termed as '*it*' are well defined by Pāṇini himself in his grammar (*cf.* the *sūtras* 1.3.2-1.3.8 which are in all 7). The '*it*-sounds are also called as '*anubandhas*' by later commentators and grammarians, though Pāṇini has used only the term '*it*' and not '*anubandha*'.

At the end of all these *sūtras* which lay down the conditions under which the different sounds or sound-groups should be taken as '*it*', there comes one of the most important *sūtras* in Pāṇini's grammar which states the purpose of laying down all these '*it*'-sounds. The *sūtra* is *tasya lopaḥ*, 1.3.9; it lays down that the sounds or sound-groups which are termed as '*it*' under conditions specified in the *sūtras* 1.3.2-1.3.8. disappear or amount to zero. Thus all the sounds or sound-groups which are termed as '*it*' in the preceding seven *sūtras* invariably amount to zero. Take, for example, the termination *ṣyaṅ* laid down by Pāṇini in the *sūtra* 4.1.78. As *ṣ* occupies the initial position of a termination, it will be termed as '*it*' according to the *sūtra*, *ṣaḥ pratyayasya*, 1.3.6, and will disappear according to *tasya lopaḥ*, 1.3.9; as the sound *ṅ*, a consonant, occupies the final position of a termination, it will be called as '*it*' according to the *sūtra*, *hal antyam*, 1.3.3, and is elided according to 1.3.9 quoted above. Now, the remaining sound-group viz. *-ya-* does not satisfy any condition of being '*it*' laid down in the *sūtras*, 1.3.2-1.3.8 and hence it does not amount to zero; it retains its form and existence.

The same is the case with the *it*-sounds in the *dhātus* or roots, *āgamas* or augments and *ādeśas* or replacing sounds or morphemes. Take, for example, the root √*sphūrj*, which is reconstructed by Pāṇini as *ṭuosphūrjā* (*cf.* Pāṇinian *dhātupāṭha*, *ṭuosphūrjā vajranirghoṣe*) and is accompanied by as many as three *it*-sounds, viz. *ṭū* (*it* according

1 For one such technique, called *lopa* or zero, *Cf.* M. D. Pandit, "Zero in Pāṇini," *Journal of the M. S. Univ. of Baroda* (Humanities) XI, No. 1. (1962), pp. 53-66.

2 The term '*it*' is derived from √*i*, '*to go*', with the Pāṇinian zero-termination *kvip*; thus it would mean 'that which goes away'; *cf.* *Cāndravṛtti*, a commentary on the *Chandra Sūtras*, on the *Cāndra Sūtra* 1.1.5: *eti gacchati iti it / iṇaḥ kvip, tuk etīti it / gacchati, na tiṣṭhati lupyata ity arthaḥ //* Jainendra and Śākaṭyana explain it as *aprayogī it* 'that which is not used in the language'. According to some scholars, '*it*' is '*iti*' itself

to *ādir ñiṭuḍavaḥ*, 1.3.5), *o* (*it* according to *upadeśe'j anunāsika it*, 1.3.2) and the final *ā* (*it* according to 1.3.2). And since all of these are *it*-sounds, they amount to zero according to the *sūtra*, *tasya lopaḥ*, 1.3.9. What remains is only the bare root-norm √*sphūrj*, to which the conjugational terminations should be applied.

We find that in Pāṇini's grammar different terminations, *dhātus*, or *āgamas* or *ādeśas* are accompanied by different *it*-sounds. Not only this but also that the same termination or *dhātu* or *āgama* or *ādeśa* is found to have been accompanied by many *it*-sounds in different places and circumstances. Let us take the termination, say, *-ya-* which has a wide distribution in the sphere of the *taddhita*, *kṛdanta*, verbal conjugation and transformation. This single termination is reconstructed by Pāṇini with different *it*-sounds in different places. The different reconstructions of this termination are: *ṣyaṅ*, *ṣyañ*, *yak*, *yat*, *yaṅ*, *yañ*, *kyac*, *kyaṅ* and *kyap*. It will be seen that the same termination *-ya-* is accompanied by as many as 9 different *it*-sounds, viz. *ṣ*, *ś*, *ṅ*, *ñ*, *n*, *k*, *t*, *c*, and *p*. The same is the case with *dhātus*. Take the root √*mad* 'to be glad, to intoxicate' etc. It is reconstructed as *madi* (1st conjugation), *madī* (1st and 4th conjugations) and *mada* (10th conjugation), which gives us three *it*-sounds viz. *a*, *i* and *ī* accompanying √*mad*. The same is the case with the *āgamas* and *ādeśas*.

Just as we find the same termination or *dhātu* or *āgama* or *ādeśa* accompanied by different *it-sounds*, we also find the same *it*-sounds accompanying many terminations or *dhātus* or *āgamas* or *ādeśas*. Take, for example, the sound *c* which becomes *it* both in the initial as well as final position of a termination according to the *sūtras*, *cuṭū*, 1.3.7 and *hal antyam*, 1.3.3 respectively. The different terminations which have *c* as the *it-sound* are: *itac*, *ac*, *imanic*, *kānac*, *śānac*, *cānaś*, *khac*, *kyac* etc. So also with the *dhātus*, *gamḷ*, *śakḷ*, *vidḷ*, *mucḷ*, *sicḷ* etc. which have *ḷ* as their *it*-sound. So with the *āgamas* and *ādeśas*.

This is rather a strange technique — to assume something merely to negate it as soon as it makes its appearance! To create something merely to destroy it as soon as it is created! The scope of the present paper, therefore, is to examine the propriety and use of the Pāṇinian technique of *it-saṁjñā* in describing the Sanskrit language; to know the purpose which seems to have guided Pāṇini to introduce this technique.

2. *DISTINCTION BETWEEN IT-ZERO AND OTHER TYPES OF ZERO*:

Before going to discuss the problem proper, as posed in the scope of the paper, it is necessary to know the distinctive characteristics of the *it*-sounds amounting to zero,

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with the final *i* of the latter lost; *cf.* G. B. Palsule: *The Sanskrit Dhātupāṭhas— A Critical Study*, University of Poona, 1961, p. 62. On the contrary, is it not more natural to say that *iti* is loc. sing. of *it* with an accent on the final *i* as *ití* (*cf.* Pāṇ. *sūtra*, 6.1.168) and with an accent-shift as *íti*, it would be turned into an *avyaya*? Examples of regular declined words turning into an *avyaya* with an accent-shift are available in Veda; *cf. divā́*, instr. sing. (ṚV.1.161.14 etc.) turning into an *avyaya* as *dívā* (ṚV. 1.24.10, 12 etc.).

that is, in short the *it*-zero and other types of zero[3] introduced by Pāṇini in his grammar. If one goes through Pāṇini's grammar, one will realise that there are circumstances in which certain sounds or sound-groups or even entire morphemes disappear altogether. Take, for example, the *vikaraṇa śap* i.e. *a* added to roots in the first conjugation to form the *sārvadhātuka* forms in the active sense. This *vikaraṇa* amounts to zero in the case of roots in the second conjugation according to the *sūtra*, *adiprabhṛtibhyaḥ śapaḥ* 2.4.72 (cf. the forms *khādati* from √*khād*, 1st cojugation and *atti* from √*ad*, 2nd conjugation, both meaning 'to eat'). Thus, the sounds which amount to zero on account of being *it* appear to be on par with the sounds or morphemes such as *vikaraṇas* etc., which also amount to zero, even though the latter are not *it*-sounds, in so far as both of them disappear. And hence, the distinction between these two types of zero, viz. an *it*-zero and a non-*it* zero appears to be of minor importance superficially. But this does not seem to be merely a verbal distinction between *it* and non-*it* categories even though both of them disappear; the distinction has a deeper significance. While the latter viz. *vikaraṇas* etc. which are not '*it*' are linguistic entities in the sense that they are found even in forms other than those in which they disappear, the former viz.the *it*-sounds are extra-linguistic elements in the sense that they are absolutely nowhere available in any linguistic form or expression in usage. It is only in the preliminary stage of grammatical operation or what is called the *alaukika-vākya* (i.e. prelinguistic or technical stage of utterance) that the *it*-sounds are found; and as soon as that stage is over, we do not find them anywhere in any linguistic form or expression or what is called the *laukika-vākya* (i.e. utterance in linguistic stage i.e. in usages.) To clarify, in the above example of the termination *-ya-*, none of the *it*-sounds viz. *ṣ* or *ṅ* by which it is accompanied, is anywhere available in the form used in the language, that is, in the stage of *laukika-vākya*. As opposed to the disappearing *it*-sounds in the termination *-ya-*, the *vikaraṇa śap* i.e. *a*, which disappears[4] in the *sārvadhātuka*, active, forms of the roots in the second conjugation (cf. the form *atti*), is visible in the sārvadhātuka, active forms of the roots in the first conjugation (cf. the forms *khādati* or *bhavati* etc.). In other words, the pre-zero existence of the non-*it* sounds or sound-groups amounting to zero is evident in cases other than those in which they disappear, whereas there is no pre-zero existence for the *it*-sounds in any linguistic expression or *laukika-vākya* in Sanskrit. Secondly, unlike the zero of the non-*it* sounds such as the *vikaraṇas* etc. the zero of the *it*-sounds cannot be contrasted against its non-zero in the linguistic expression in usage. The zero of the *it*-sounds, therefore, is a zero of a purely extra-linguistic element; and to lay down something which does not come within the field of a science (here linguistics in general and grammar in particular), unless it is a part of a science or at least affects it from outside (like the para-linguistic categories of volume, voice, pitch etc. of the sounds) and then negate it, seems, therefore, to be a strange technique!

The *it*-sounds can also be compared with other non-*it* sounds which also amount to zero entirely and have also no pre-zero existence in similar forms in the language. Such non-*it*

3 *cf.* M. D. Pandit: *op. cit.* p. 53-66.

4 For the loss of the *vikaraṇa śap*, *cf.* the *sūtra* 2.4.72.

sounds or sound-groups are the zero-terminations or morphemes *ṇvi*, *kvip*, *kvin* etc. in Pāṇini's grammar[5] applied to form root-nouns. These are purely zero-terminations in the sense that each of their sounds satisfies the conditions of being '*it*' and hence becomes zero. In this respect the zero-terminations are nothing but a bundle or combination of zeros. These zero-terminations also have no pre-zero existence in any usable linguistic expression in Sanskrit for which Pāṇini has laid them down. To explain, like the *it*-sounds, the termination *ṇvi* in the formation *bhāk* is also not available in its pre-zero stage either in this form or in any other usable forms of the same root-noun viz. *bhāk* used in the language. The same is the case with other zero-terminations like *kvip*, *kvin* etc. which are also not found in their pre-zero stage in any root-nouns usable in the language which are formed by applying these terminations. Just as the *it*-sounds are laid down and then elided, so also the zero-terminations are applied and then totally negated. Just as the *it*-sounds are purely extra-linguistic, so also are the zero-terminations extra-linguistic.

Secondly, just as the *it*-sounds have no non-zero counter-part, so also the zero-terminations forming root-nouns have also no non-zero counterpart. To illustrate, just as the zero *it*-sound *ṣ* occurring initially in a termination (viz. *ṣyaṅ*; see above) has no non-zero counterpart in any other *ṣ* satisfying the same conditions, a zero *kvip* also has no non-zero counterpart in any other *kvip* satisfying the same conditions as those of the former *kvip*. Just as there is no non-zero it, there is no non-zero *kvip*, *kvin*, or *ṇvi* etc.

In spite of this similarity, there is a great difference between the two. In order to distinguish between the two, it is necessary to remember an important principle viz. that in Sanskrit language, and hence in Pāṇinian description, termination is a compulsory category; without a termination no form is usable in the language.[6] This assumption at once gives us the analysis of any form in Sanskrit into two categories: a *prakṛti* or nucleus and a *pratyaya* or termination or satellite. Thus any form in Sanskrit can be represented by the equation, Form = Nucleus + Satellite. If now after analysis the formation *kartṛ* is seen to give out the nucleus *kar* and the satellite *tṛ*, from the point of view of symmetrical description the formation *bhak* must also be described or represented as giving out a nucleus and a satellite. But *bhāk* displays only the nucleus without any satellite. In such cases it becomes necessary for a grammarian to assume a zero-termination for the purposes of laying down general, symmetrical rules. Pāṇini has done exactly the same thing. The terminations in such cases are viz. *kvip*, *kvin*, *ṇvi* etc. which are given arbitrarily and made to disappear entirely. In such cases, though the phonological value of the terminations is zero, their value as terminations is on par with that of any other non-zero terminations. Though, therefore, the zero *kvip* cannot be compared or contrasted with a non-zero *kvip*, as a termination it can be contrasted with other non-zero terminations like *ṇvul*, *tṛc* etc. In this respect the zero *kvip* as a termination has its non-zero counter-part in terminations like *ṇvul*, *tṛc* etc. which do not amount to zero. The zero *it*-sounds, however, even as *it*,

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5 For details, *cf.* M. D. Pandit: *loc. cit.*

6 *cf. Patañjali* on 1.2.45: *nityasaṃbandhāv etāv arthau prakṛtiḥ pratyaya iti / pratyayena nityasaṃbandhāt kevalasya prayogo na bhaviṣyati / /*

cannot be compared with other non-zero *it*-sounds, since obviously the division of a non-zero *it*-sound does not exist at all. Whatever is termed as '*it*', disappears entirely. A zero, *it*, *ṣ*, therefore, as *it*, cannot be compared with a non-zero *it*, *ṣ* since obviously no non-zero, *it*, *ṣ* is available. We thus find a definite grammatical principle behind the application and negation of the zero-terminations; no such grammatical or linguistic principle is visible in the application and negation of the *it*-sounds. Unlike the zero-terminations, the *it*-sounds are neither compulsory nor linguistic. Why then did Pāṇini introduce the extra-linguistic and non-compulsory *it*-sounds in linguistic description?

3. REASONS FOR INTRODUCING THIS TECHNIQUE:

1. *Necessity of linguistic description*: One of the reasons for introducing the technique of *It-saṁjñā* could be sought within the Sanskrit language itself. The Sanskrit language, as is well known, is full of various types of formations. We find this variety especially in the field of derivatives—both *taddhita* and *kṛdanta*. There are forms like *kártā* and *kartā'* which are similar phonologically but differ in accent; forms like *kāraḥ* and *jayáḥ* take the same termination viz. *-a;* the roots therein, viz. √*kṛ* and √*ji* undergo the same grammatical change viz. *guṇa* of the vowels; yet they accent differently. It is clear from the formations above that though the terminations in the pairs are the same (*tā* in *kártā* and *kartā'*, and *a* in *kára* and *jayá*), the forms on the whole, taken with the accent, do not present an identical appearance. So is the case with the pair *mṛga* and *mārga;* the termination viz. *-a* seems to be the same; the root from which both could be derived viz. √*mṛj* is the same. But, one form viz. *mārga* displays the *vṛddhi* of the vowel in the root, while the other form viz. *mṛga* does not. The same is the case with the formation *kṛtya* and *kārya*. Though both could be obviously derived from the same, homophonous root viz. √*kṛ* with the same, homophonous termination viz. *-ya*, they do not display a phonologically similar pattern. Take yet another pair as example. The formations *nartaka* (from √*nṛt* 'to dance') and *kāraka* (from √*kṛ* 'to do') display variations of grammatical change although they seem to take the same termination viz. *-aka;* while the *ṛ* in √*nṛt* displays *guṇa*, the *ṛ* in √*kṛ* displays *vṛddhi*. Thus we find that though the termination is the same, it is not accompanied by the same grammatical, phonological or accentual change. Also, even though both the categories of two formations, viz. the *prakṛti* i.e. stem or nucleus and *pratyaya* i.e. termination or satellite are homophonous, the linguistic structures their combination gives rise to do not display homophonous statements; *cf.* the forms *mṛga* and *mārga; kṛtya* and *kārya.* Moreover, even if two linguistic structures going back to the same, homophonous roots and the same, homophonous terminations are identical phonologically, they do not agree in accent; *cf.* the accented forms *kártā* and *kartā'*. Even the same termination bringing about similar grammatical changes in the stem and in the formation as a whole accents differently. Innumerable examples could be quoted in which the formations do not correspond either phonologically or accentually or both, even if the two categories of the *prakṛti* and *pratyaya* in the stage of their *prakṛti-pratyaya* analysis are the same or identical.

Now, the problem for the grammarian under these circumstances is: How are such differences, which are sometimes very minute and subtle in the different formations in the language to be explained grammatically and comprehensively? How is he to state the laws of the language in such a way that they would cover the maximum number of cases with minimum number of statements? Or, should he, in such cases, abandon the formal approach and take to non-formal considerations if the latter are applicable? There does appear some scope for explaining the formal categories with the help of non-formal categories like meaning etc. Take the pair *mṛga* and *mārga.* Should the grammarian explain these formations with the help of their meaning as: when the sense of 'deer' is intended, the derivative from √*mṛj* with *a* should be formed without the *vṛddhi* of the vowel in the stem and when the sense of 'path, way, road' is to be conveyed, the derivative from √*mṛj* with *a* should get the *vṛddhi* of the vowel in the stem? Innumerable cases like these could be cited in which there is a sufficient scope for the non-formal categories to come into the field of grammar. Is the grammarian justified in such cases if he explains the formal categories with the help of the non-formal categories?

Pāṇini has sought to overcome this difficulty with the help of the *it*-sounds. He attaches these sounds to the categories of terminations, *dhātus*, *āgamas* and *ādeśas*,[6A] or in general, to whatever he deems fit or convenient. Actually there is no example of a termination or *dhātu* or *āgama* or *ādeśa* which is not accompanied by *it* sound or sounds. With the help of these sounds he distinguishes the apparently similar or homophonous terminations, *dhātus, āgamas* or *ādeśas* from one another. Thus for example, though the termination *-ya-* in the formations *kṛtya* and *kārya* is homophonous, it is reconstructed differently with different *it-sounds*. While the termination in *kṛtya* is reconstructed as *kyap*, accompanied by two *it*-sounds viz. *k* in the initial and *p* in the final position, the termination in *kārya* is *ṇyat* with an initial *ṇ* and a final *t* as *it*-sounds. So also in the case of the *dhātus* or *āgamas* or *ādeśas*. Thus the *it*-sounds primarily are meant to serve as differentiating agents or symbols.

But merely adding some *it*-sounds here and there does not solve the whole problem; it would merely differentiate the different terminations or *dhātus* or *āgamas* or *ādeśas*, and mere differentiation would not lead to the explanation of the formation. It would also not by itself be capable of suggesting the grammatical operation to be followed and the phonological modifications in the forms to be adopted. If symbols viz. the *it*-sounds are to be introduced with the aim to account chiefly for the difference in the formations, what is the use of such differentiating agents which cease to function beyond differentiating from one another the terminations or *dhātus or āgamas* or *ādeśas* only? At this stage, such differentiating symbols require logically a positive, creative, operational capacity, by which they will automatically operate and create the formation.

6A In all there are six grammatical categories in Pāṇini's grammar, which Patañjali calls as *vyavasita; cf.* Patañjali on 1.3.3: *ke punar vyavasitāḥ / dhātuprātipadikapratyayanipā— tāgamādeśāḥ / /*

This would require special rules which would empower these differentiating symbols to operate, that is to say, to bring about the necessary phonological, accentual or any other type of modifications required to create the desired formations. And this is exactly what Pāṇini has done. He has infused the *it*-sounds with different powers to bring about the required modifications in the grammatical process of the formation in question, laid down the rules and conditions, and specified the limit of the spheres in which they would exercise their powers.

Thus, we find that the *it*-sound *ṇ* in the termination *ṇyat* is invested with the power of bringing about the *vṛddhi* of the vowel in the stem; *cf.* the *sūtra, aco ñṇiti*, 7.2.115. This would give us phonological modification in the stem or base *kṛ* into *kār* (the vowel ṛ > *ār*) before the termination *ṇyat*. Also, the *it*-sound *t* would give us the *svarita* accent on the termination; *cf.* the *sūtra, tit svaritam*, 6.1.185. So is the case with all the *it*-sound attached to the terminations, *dhātus, āgamas* and *ādeśas*. The grammatical process according to Pāṇini to arrive at the two formations *kṛtya* and *kārya* is given below in detail for easy comprehension of the working of his whole technique:—

prakṛti (stem, nucleus) + *pratyaya* (termination, satellite) = *rūpa* (form).[7]

$\sqrt{}$*kṛ* + *kyap* (*kyap* added according to 3.1.120)

= *kṛ* + *yap* (*k* is *it* and hence becomes zero according to 1.3.8 and 1.3.9 respectively).

= *kṛ* + *ya* (*p* is *it* and hence zero according to the *sūtras*, 1.3.3, & 1.3.9. respectively).

= *kṛ* + *t* + *ya* (*t* is inserted before the *pit*-termination according to the *sūtra*, *hrasvasya piti kṛti tuk*, 6.1.71)

= *kṛtya*, the final form (no *guṇa or vṛddhi* because of the *kit* termination, according to the *sūtra, gkṅiti ca*, 1.1.5).

Similar technique is to be followed in the case of the formation *kārya* also. The termination in this case is *ṇyat*. The procedure is as follows:—

prakṛti + *pratyaya* = *rūpa* (form).

= $\sqrt{}$*kṛ* + *ṇyat* (*ṇyat* added according to *ṛhalor ṇyat*, 3.1.124).

= *kṛ* + *yat* (*ṇ* is *it* and zero according to the *sūtras* 1.3.7 and 1.3.9 respectively).

= *kār* + *yat* (*ṛ* > *ār* according to 7.2.115 since the termination is *ṇit*)

= *kār* + *ya* (*t* is *it* and zero according to 1.3.3 and 1.3.9 respectively)

= *kārya*, the final form.

7 This is the basic assumption as Patañjali has explained in his *bhāṣya* on the Pāṇinian *sūtra*, 1.2.45.

= *kāryà*, the accented, final form; since the termination is *tit*, it gets a *svarita* i.e. circumflex accent on itself according to the *sūtra*: *tit svaritam*, 6.1.185; *cf.* the form *kāryàḥ*, *Taittirīya Saṁhitā*, 3.5.2.1 etc.

We find, therefore, that though the forms *kṛtya* and *kārya* on straight, simple analysis into *prakṛti* and *pratyaya* apparently seem to possess the same, homophonous stem *kṛ* and the same homophonous termination *-ya*, they do not give out the same, homophonous formations. Pāṇini was, therefore, forced to show the difference between the formations with the help of the *it*-sounds attached to the termination viz. *-ya*. The terminations are differentiated at the very stage of their reconstruction; and the differentiating agents or symbols, viz. the *it*-sounds are invested with different powers to bring about the necessary phonological or accentual adjustments or modifications in the forms.

The same procedure and technique is to be adopted while accounting for the formations *mṛga* and *mārga*, *kártā* and *kartā'*, *nartaka* and *kāraka* etc. the homophonous terminations in whose cases are differently reconstructed by Pāṇini and infused with different powers with the help of the *it*-sounds. The same state of affairs prevails in the case of the *dhātus*, *āgamas* and *ādeśas*. The function ascribed to the *it*-sounds attached to the *āgamas* is to suggest the place where the *āgama* should be attached; cf. the *sūtras*, *ādyantau ṭakitau*, 1.1.46 and *mid aco'ntyāt paraḥ*, 1.1.47.

One, therefore, sees that the whole thing turns out to be the wonderful and systematic technique of the *It-saṁjñā*. The *it*-sounds perform two types of function: (1) If the terminations, *dhātus*, *āgamas* or *ādeśas* turn out homophonous after analysis, the *it*-sounds function as differentiating agents or symbols and (2) invariably they function as operational symbols, invested with the power of operating within their specified field. Now, since, as we have seen above, they are extra-linguistic elements meant to serve a purely technical purpose, they must, strictly from logical point of view, be made to disappear from the scene as soon as their purpose is served. Thus, the zero of the *it*-sounds is a differentiating as well as operational zero. In the latter capacity, the zero has, like a magnet, a power to diffuse the different sounds either in the stem or termination or *āgamas* or *ādeśas* or all of them together and arrange all of them again in the desired order which will correspond to that in the linguistic expression used by the speakers of the language. The *it*-sounds in the capacity of operational symbols can thus be compared with the operational signs of addition, subtraction, multiplication, division and a host of other signs used in mathematics for the purpose of signifying or suggesting the desired mathematical operation between two or more numbers.

One can see, therefore, that the description of the Sanskrit language itself, which is full of various types of formations whose analysis into *prakṛti* and *pratyaya* turned out to be in many cases similar, partly demanded the use of such a complicated technique. Without such a technique, it would have been impossible to prepare in the briefest possible way the grammar of so rich a language as Sanskrit.[8] It is because of this inherent

8 For the richness of the Sanskrit language from the point of view of the number of formations in it, *cf.* M. D. Pandit, "A Statistical Picture of Pāṇinian Word-Formations," *Pade Shastree Sammana Grantha* published by Pade Shastree Sammana Samiti, Baroda, Jan. 1964, pp. 1-7.

character of the language that Pāṇini found it necessary to introduce such a complicated technique.

2. *Brevity*: Besides the necssity of the language, there is yet another purpose in introducing this technique. At this stage, it would not be impertinent to ask: Why did Pāṇini choose to analyse and describe the language in the way he has done? If, instead of analysing the form, say, *kṛtya* as *kṛ* + *ya* and then inserting a tagmeme *t* in between the stem and the terminations, he had analysed it straight as *kṛ* + *tya*, the problem of distinguishing between the -*ya*- of *kṛtya* and of *kārya* would have been automatically solved. Certainly there is nothing wrong in this. To say that the formation *kṛtya* has a termination -*ya*- with a *t* is from common man's point of view the same as saying that it has a termination -*tya*-. True. But, such an analysis is quite all right in cases where definite phonological difference is visible in the terminations or stems themselves. And such cases are very few. Take the termination -*ya*- itself. One can easily distinguish it from -*tya*. But what about its difference from the passive termination -*ya*- (Pāṇinian *yak*) which is homophonous with -*ya*- in *kārya* and hence cannot be distinguished from it? So is the case with the termination -*a*-[9] as found in several forms like *jaya*, *kara*, *graha*, *grāha*, *bhava*, *bhāva* etc. which, even if analysed in the non-Pāṇinian way, give out in all cases the same termination viz. -*a*- without any phonological variations in it. In such cases, there is no other way but to attach some arbitrary distinguishing signs or symbols to distinguish them from its other homophones. The only alternative to adding distinguishing signs is to enumerate and enlist all those forms and terminations which display similar phonological pattern and change; that is to say, to put it in Pāṇinian terminology, to create a great number of groups or *gaṇapāṭhas;* in that case, it would be very difficult to lay down a general symmetrical rule and hence would be a *gaurava* as against *lāghava* or brevity which was thought as the most important thing, next to truth and accuracy, in scientific writings in ancient India. Brevity came to assume an important position in each and every writing because of the oral tradition in ancient India. It would have been impossible to hand down different texts orally without brevity.[10]

4. REASONS FOR INTRODUCING SOUNDS OF THE LANGUAGE AS SYMBOLS:

(1) *Artificial formal plane*: It is really interesting to know why Pāṇini used the sounds of the Sanskrit language as operational or differentiating symbols. It is accepted that grammar restricts its scope to phonology, morphology and syntax of a language.[11] Therein too, a grammarian is concerned chiefly with the formal aspects of the

9 The same -*a* is reconstructed by Pāṇini in as many as 18 ways: *a, ac, aṅ, ap, aṇ, ka, kap, khac, khal, khaś, gha, ghañ, ṭa, ṭak, ḍa, ṇa, ṇac* and *śa*. It is accompanied by as many as 12 *it*-sounds: *c, ṅ, p, ṇ, k, kh, gh, ñ, ṭ, ḍ, l,* and *ś;* thus it is of twelve types, giving out twelve different phonological and accentual operations in the form.

10 And hence the *sūtra*-system also.

11 *cf.* G. Trager: ***Studies in Linguistics,*** 1958.

linguistic expression and does not consider at all non-formal categories like meaning etc. Even if he has to consider the non-formal elements, he considers them secondarily i.e. through or with reference to formal elements.[12] If, now, we read the technique of Pāṇinian *it-saṁjñā* from this point of view, we will find that by introducing the very sounds of the Sanskrit language as symbols, he has created in the technique itself an artificial formal i.e. meta-formal plane or level through which he not only lays down the purely formal i.e. grammatical procedures such as phonological variations and but even accounts for the supra-segmental categories such as accent and non-formal categories such as meaning etc. which would otherwise have required a purely non-formal approach. Pāṇini, who has dealt with the non-formal categories such as meaning etc. only through formal point of view, therefore, appears to be fully consistent in inventing and introducing the artificial formal level in his grammar. The result is that even if he considers the non-formal category of meaning in as many as 1000 *sūtras* and the supra-segmental accent in about 325 *sūtras*, he appears to be strictly adhering to formal analysis, so much so that the inclusion in his grammar of the discussion and description of the non-formal or supra-segmental category is not even easily recognizable. Without such a technique he could not have attained so much consistency and perfection in describing the formal categories. The example of the pair *mṛga* and *mārga*, *kártā* and *kartā'*, for the non-formal category of meaning, and the rules of accent for the supra-segmental category which are in many places explained only with reference to this artificial formal plane bear testimony to this.

It is with reference to this artificial formal level that he accounts for the formations in the language. Take, for example, the formation *nartakī*, feminine of *nartaka*, 'a dancer'. Actually the feminine form of the word *nartaka*, which ends in *-a*, *should* be in Pāṇinian technique formed by applying the termination *ā* (i.e. *nartakā*) and not *ī* (i.e. *nartakī*). But by the virtue of this technique Pāṇini lays down the termination *ṣvun* to form the word *nartaka* (i.e. *vu* > *aka* according to *yuvor anākau*) in the *sūtra*, *śilpini ṣvun*, 3.1.145; then he lays down in the *sūtra*, *ṣid gaurādibhyaś ca* 4.1.41 that a form getting a *ṣit* termination gets the termination *ī* (Pāṇinian *ṅīṣ*) in the feminine. Now, because the termination *ṣvun* is *ṣit* i.e. has *ṣ* as the *it*-sound, the form *nartaka* which is formed by applying a *ṣit*-termination will give out its feminine as *nartakī* and not *nartakā*. In this case, he could have easily resorted to the non-casual meaning and explained the form, as opposed to the casual meaning of the form *kāraka* in which it is used in the language. Instead, he resorted to the artificial formal level, created by the *it*-sounds attached to the terminations.

In the case of the *it*-sounds of the roots also, Pāṇini has adopted the same technique. Take the *ṣit* root *jṝṣ* 'to become old' (1st conj.) (i.e. $\sqrt{}$*jṝ*). Now Pāṇini in the sūtra,

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12 *cf.* M. D. Pandit, "Some Linguistic Principles in Pāṇini's Grammar," *Indian Linguistics*, Linguistic Society of India, Deccan College, Poona, 1963, Vol. 24 pp. 53-56; Section on *Semology* and *Grammar*.

ṣidbhidādibhyo'ṅ, 3.3.104 states that a root which has the sound *ṣ* as *it* in his reconstruction gets the termination *a* while forming the feminine of its deriative. Thus, √*jṝ* gives out the non-feminine root-noun as *jar;* this root-noun gets one *a* (Pāṇinian *aṅ* in the *sūtra* 3.3.104) before a feminine termination and assumes the form *jara;* this *jara* being an *adanta* (i.e. ending in *-a*) gets the feminine termination *ā* (and not *ī*) according to the *sūtra, ajādyataṣ ṭāp*, 4.1.4 and gives out the feminine form as *jarā* which gets the declensional terminations. Instead of refering to the *it*-symbol *ṣ*, he could have referred to the conjugation of the root which occurs also in the 9th and 10th conjugation without any *it*.

The same is the case with accents also. Take, the form *kartā* both oxytone as well as barytone (discussed above). If the form is formed by applying the termination *tṛn* which is *nit*, it will accent on the first syllable as *kártā* according to the *sūtra, ñnityādir nityam*, 6.1.197. If it is formed by applying the *cit*-termination viz. *tṛc* (*cf. ṇvultṛcau* 3.1.133), it will be accented on the last syllable as *kartā'*. *cf.* the *sūtra, citaḥ*, 6.1.163. In this case, he could have easily resorted to the syntactic considerations of the words as: when syntactically connected with an acc. the word *kartā* would be accented on the first syllable as *kártā* and when connected with gen. it would be accented on the last syllable as *kartā'*. But he resorted to the artificial formal plane of the *it*-sounds to explain it as formally as possibe.

(2) *Oral tradition*: It is well known that ancient India had oral tradition to hand down the material of the texts from generation to generation. It was obviously due to the fact that writing was either unknown or was not used for the purpose of handing down any text in those times. Now, when a person like Pāṇini wants to use some symbols in his text, obviously he has no other choice but to use only those symbols which could be handed down from one generation to another orally. And obviously as oral symbols, nothing is better than sounds. He could have used written signs similar to those that are used by mathematicians or logicians of today in their writing, if writing were used.

But it must be remembered here that all the sounds which Pāṇini has used to serve as operational or differentiating symbols occur there in the capacity of symbols and not as sounds or phonemes of the Sanskrit language. And hence a clear distinction of a sound as a technical symbol and the same sound as the phoneme of the language must always be kept in mind while studying Pāṇini's grammar.

5. *IT*-SOUNDS ADDED TO TERMINATIONS AND TO *DHĀTUS* — A COMPARISON:

Now, by virtue of their being symbols, the *it*-sounds could be attached to anything according to convenience and occasion. Pāṇini on his part has employed them in four categories, viz. the terminations, the verbal stems i.e. the *dhātus*, the *āgamas* and the *ādeśas*. In all there are six categories in Pāṇini's grammar, which are called by the

term *vyavasita* by Patañjali. Out of these, the *it*-sounds attached to the terminations on the one hand and to the *dhātus* on the other present an interesting contrast.

In the case of the terminations, the *it*-sounds employed are all from the group of consonants. Though theoretically according to the definition *hal 'antyam* 1.3.3, all the consonants can function as operational and differentiating symbols if they are added at the end of the termination, we get only 19 consonants used by Pāṇini to function as symbols. They are: *k*, *kh*, *g*, *gh*, *ṅ*, *c*, *ñ*, *ṭ*, *ḍ*, *ṇ*, *t*, *n*, *p*, *m*, *r*, *l*, *ś*, *ṣ*, and *s;* and consequently to the minimum, we have 19 types of operational and differentiating functions in the sphere of terminations alone. It will also be seen that the vocalic sounds as symbols are conspicuously absent in the case of terminations.

If we examine the Pāṇinian *dhātupāṭha* on the other hand, we find that the symbols used to suggest a grammatical operation are all from the group of vowels which are ten in number; they are: *a*, *ā*, *i*, *ī*, *u*, *ū*, *e*, *o*, *ṛ*, and *ḷ*. In the sphere of *dhātus* Pāṇini has also used some consonantal sounds as symbols; they are in all six: *k*, *ṅ*, *ñ*, *ṭ*, *ṇ* and *p*. But we do not find any specific grammatical operation ascribed to them. These consonantal *it*-sounds mainly function as differentiating symbols.[13] Only the sounds *ṅ*, *ñ* and *p* function as operational symbols; *ṅ* suggests Ātmanepada; *cf.* the *sūtra* 1.3.12; *ñ* indicates that the root could be conjugated in both the *padas* viz. *Ātmanepada* and *Parasmaipada; cf.* the *sūtra*, 1.3.72; and the sound *p* performs the negative function of excluding the *pit* roots to assume the *ekārānta* form before the *kit* terminations of the potential and benedictive tenses; *cf.* the *sūtra*, *dādhā ghvadāp*, 1.1.20.

Another peculiarity of the *it*-sounds in the case of the *dhātus* is that in contrast to the invariably single-sound *it*-symbols in the case of the terminations, Pāṇini has also used double-sound *it*-symbols in the case of the *dhātus;* They are in all four: *ñi*, *ṭu*, *ḍu* and *ir*. What is meant by double-sound *it*-symbols is that unlike the sounds in the single-sound *it*-symbols, the sounds in these double sound *it*-symbols disappear jointly and not singly or individually. They have a 'collective responsibility,' so to say, in disappearing; *ñi* disappears as *ñi*, so that *ñi*, the whole, becomes zero; it does not disappear by parts as *ñ* = o and *i* = o. So is the case with the sounds in the symbols *ṭu*, *ḍu* and *ir*. To introduce a double-sound *it*-symbol is certainly a greater advance than the introduction

13 The *it*-sound *k* differentiates the root *i* (2nd conj.) 'to remember' from *i* (2nd conj.) 'to study'. The first is laid down as *ik* while the second is reconstructed as *iṇ*. (cf. also the roots *ohāk* and *ohāṅ*, 3rd conj.). The sound *ṅ* suggests Ātmanepada (*cf. annudāttaṅita ātmanepadam*, 1.3.12). The sound *ñ* indicates that the root can be conjugated in both the *padas* (*cf. svaritañitaḥ kartrabhiprāye kriyāphale*, 1.3.72). The sound *ṭ* attached as *it* to the root *dheṭ* (1st conj.) occurs only once *i.e.* here and actually performs no function — neither of differentiation nor of any grammatical operation anywhere. The *it*-sound *ṇ* distinguishes between two homophonous roots; *cf.* the example of the roots *ik* and *iṇ* given above. So also does the *it*-sound *p*, which differentiates between the homophonous roots $\sqrt{}$*dā* 'to give' (1st conj. Par.) and $\sqrt{}$*dā* 'to cut' (2nd conj. Par.). While the former is laid down as *dāṇ*, the latter is reconstructed as *dāp*.

of a mere single-sound *it*-symbol and opens a vast treasure of technical symbols for a grammarian, so that he will never fall short of symbols! Unfortunately or fortunately, the occasion of coining three-sound or four-sound *it*-symbols did not arise for Pāṇini; otherwise he certainly would have gone to the extent of utilising multi-sound *it*-symbols for the sake of brevity and oral tradition!

Out of the four double-sound *it*-symbols mentioned above, the symbol *ir* poses a difficulty. While Pāṇini in the *sūtra, ādir ñiṭuḍavaḥ*, 1.3.5 carefully and explicitly states the three symbols *ñi, ṭu* and *ḍu* as *it* and clearly lays down the initial position (*cf.* the word *ādiḥ* in the *sūtra*) as the sole condition for them to be *it*, he has nowhere defined the symbol *ir* as *it* and stated the conditions when it is to be termed as *it*. It is only by implication from the Pāṇinian *sūtra, irito vā*, 3.1.57 that we are to understand that the sound-group *ir* is also to be counted as it. It is due to the absence of any Pāṇinian *sūtra* to that effect that the *vārttikakāra* had to frame his *vārttika*, viz. *ira itsaṁjñā vācyā* (*cf.* the *vārttika* on the Pāṇinian *sūtra*, 3.1.57). But even the *vārttikakāra* is also not sufficiently accurate on this point in that he has not clearly defined the positional condition for the symbol *ir* to be *it*. And we are left to understand the final position of the symbol *ir* as the condition for its being *it* only from its occurrence at the final position of the roots. Fortunately, *ir* nowhere occurs in the initial position of any root and thus no ambiguity arises. In the case of *ir*, however, Pāṇini seems to have been a little careless.[14]

In the field of *dhātupāṭha*, therefore, we have in all 20 *it*-symbols (10 vowels + 6 consonants + 4 double-sound *it*-symbols). Out of these, the symbol *a* is not ascribed any specific operational or differentiating function; the sounds *k*, *ṭ* and *ṇ* do not perform the function of any grammatical operation. Excluding these four *it*-symbols, therefore, we have only 16 types (20 - 4) of grammatical operations in the field of the *dhātus*, corresponding to the 16 *it*-symbols which are infused with a definite, positive function of grammatical operation. This fact, therefore, that only some, out of all, *it*-symbols added to the *dhātus* perform the function cf grammatical operation and the remaining either function merely as differentiating agents or even do not function at all in any way, is in sharp contrast with the fact that all the *it*-symbols added to the terminations, *āgamas* and *ādeśas*, invariably and without any exception perform the function of grammatical operation[15], besides acting as differentiating symbols.

14 This fact raises many problems. Is the *dhātupāṭha*, in which alone *the it*-symbol *ir* is available, Pāṇinian, pre-Pāṇisian or post-Pāṇinian? In the first two cases Pāṇini could not have missed or neglected the point and been ordinarily careless. In the last case, Pāṇini could not have composed the *sūtra, irito vā* 3.1.57; and when it is there, its genuineness becomes a point of controversy and raises the further question: who added it and when? There is yet another possibility. That Pāṇini knew, and laid down the operational purpose of the *it*-symbol *ir*, is clear *from* 3.1.57. Is it then possible that he had also composed a *sūtra* defining the conditions of the *it*-symbol *ir*, which was unfortunately lost in the course of oral tradition? In that case Pāṇini could not be blamed.

15 Does this fact not suggest that unlike the *it*-symbols added to the terminations, *āgamas* or *ādeśas*, some symbols added to the *dhātus* are loose and empty of any purpose? If

All these *it*-symbols, therefore, in all give us 35 types (19 of the terminations and 16 of the *dhātus*) of grammatical operations in Pāṇini's grammar. Without the use of any such technique, Pāṇini would have been compelled to frame at least 35 more *sūtras*.

6. *IT*-ZERO—ALWAYS A POTENT ZERO.

If one examines the linguistic zero introduced by Pāṇini in his grammar as a technique for generalisation and framing symmetrical rules[16], one finds that the linguistic zero has two main divisions. The first is the potent zero, which is laid down by the express term *lopa* and hence which has the power to bring about the stated grammatical changes in the process of generating the formations. The Pāṇinian *sūtra* that gives this power to the *lopa* is *pratyayalope pratyayalakṣaṇam*, 1.1.62. The second division is the impotent zero, which is laid down by the terms *luk*, *ślu* and *lup* (*cf*. the *sūtra pratyayasya lukślulupaḥ*, 1.1.61) and hence cannot bring about any grammatical modifications in the grammatical process; the Pāṇinian *sūtra* that deprives the zero by terms *luk*, *slu* and *lup* of such power is *na lumatāṅgasya* 1.1.63. In the case of the zero of the *it*-sounds, however, no such divisions into a potent zero and an impotent zero are available. The reasons are obvious. From the point of view of Pāṇinian technique and its terminology, we get that the zero of the *it-sounds* is laid down by the express term *lopa* (*cf*. the word *lopaḥ* in the *sūtra*: *tasya lopaḥ*, 1.3.9 which lays down the zero of the *it*-sounds). By the definition, therefore, given in the *sūtra*: *pratyayalope pratyayalakṣaṇam* 1.1.62, this *lopa* of the *it*-sounds has all the powers to bring about the stated grammatical changes. Moreover, there is no *sūtra* in Pāṇini's grammar which lays down the zero of the *it*-sounds by the terms *luk*, *ślu* and *lup*.

Secondly, from the point of view of the purpose which led Pāṇini to introduce the technique of *it-saṁjñā*, it would have been most illogical and unnatural to lay down the zero of the *it*-sounds by any terms other than the express term *lopa*, since obviously the technique of the *it*-zero is adopted only for the sake of bringing about the different grammatical operations in different places in as less a number of *sūtras* as possible. This very purpose, therefore, would not have been served if an *it*-sound would have been made to disappear by terms like *luk*, *ślu* and *lup* which leave the zero without any power to bring about any grammatical operations. The chief characteristic of the zero of the *it*-sounds is, therefore, that it is always and invariably a potent zero with full authority to bring about the stated grammatical operations. There is no *it*-zero which is impotent; nay, an *it*-zero can never be an impotent zero if the purpose is, as we have seen above, what it is introduced for.

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this is so, then does it not point to the un-Pāṇinian authorship of the *dhātupāṭha?* For a discussion of the authorship of the Pāṇinian *dhātupāṭha*, cf. G. B. Palsule: *The Sanskrit Dhātupāṭhas — A Critical Study*, University of Poona, 1961, Chap. II.

16 *Cf*. M. D. Pandit: *Zero in Pāṇini*, pp. 53-66.

If, however, the categories of the terminations, *dhātus*, *āgamas* or *ādeśas* themselves, which the *it*-sounds accompany, disappear by the terms *luk*, *ślu* and *lup* and hence become impotent, then alone the *it*-sounds become an impotent zero. But in such cases, the *it*-sounds together with the terminations etc. they accompany have obviously no existence there and consequently no say in the matter of modifications. In all other places, the *it*-zero is a fully potent zero.

7. TYPES OF FUNCTIONS OF THE IT-ZERO:

As we have seen above, all the *it*-sounds are seen to perform the two main functions of (1) differentiation and (2) grammatical operation. Each of the *it*-sounds performs either the first or the second or in many cases both the functions. Out of these two, the function of grammatical operation displays two divisions: (1) positive function (2) negative function.

(1) *Positive function*: What is meant by positive function is that an *it*-sound positively brings about any phonological modifications like *guṇa*, *vṛddhi* etc. or any accent-change like *uddātta*, *anudātta*, *svarita* etc. in the formation or stem or termination. The *it*-sound *ṇ* from the group of terminations is a good example. Its function as laid down by Pāṇini in the *sūtra*, *aco ñṇiti*, 7.2.115 is positive, viz. to bring about the *vṛddhi* of the final vowel in the stem. The example of the formation *kārya* (from √*kṛ* + the *ṇit* termination *ṇyat*) given above and the grammatical procedure shown there will illustrate the point. The *it*-sound *ṇ* positively exercises its power to bring about the grammatical change in the stem *kṛ* in terms of the *vṛddhi* of *ṛ* into *ār*.

(2) *Negative or neutral function*: As opposed to the positive function, the negative or neutral function in Pāṇini's grammar means the prohibition or nullification of the desired, positive grammatical operation, by means of an *it*-sound. The *it*-sounds in such cases are invested with negative or neutral capacity. Take the example of the *it*-sound *k* in the termination *kyap* applied to √*kṛ* to form the word *kṛtya*. We can see that by the Pāṇinian *sūtra*, *gkṅiti ca* 1.1.5 the *it*-sound *k* is invested with the power to prohibit any phonological change in terms of *guṇa* or *vṛddhi* in the stem. In other words, it nullifies or neutralises the operation of the *sūtra*, *sārvadhātukārdhadhātukayoḥ*, 7.3.84. Thus negation or prohibition and nullification go together.

Sometimes the same *it*-sound is found to perform both the positive and negative or neutral functions. Take the *it*-sonud *p* in the termination *kyap* (in the form *kṛtya* above). The *p* has the positive function of inserting the tagmeme *t* before the termination -*ya*- according to the *sūtra*, *hrasvasya piti kṛti tuk*, 6.1.71. The same *p* has again the negative function of prohibiting the *udātta* accent on itself; *cf.* the *sūtra*: *anudāttau suppitau*, 3.1.4, which prohibits a *pit* termination to have an *udātta* accent on itself. The *udātta* accent on a termination is laid down by Pāṇini in the *sūtras*: *pratyayaḥ*, 3.1.1 and *ādyudāttaś ca*, 3.1.3. The *it*-sound *p*, therefore, simultaneously with the prohibition of *udātta* accent on itself, neutralises the operation of the *sūtra* 3. 1. 3. It should be noted here that the spheres of positive and negative or

neutral operations are different. While the sphere of positive function in the case of *p* is that of phonological change, the sphere in which it is ascribed a negative or neutral function is that of accent. The same *it*-sound is — and can be — made to operate both positively and negatively in different spheres. There is no — and cannot be any — *it*-sound which functions both positively or negatively in the same sphere of grammatical operation.

There are some *it*-sounds like *ñ*, *ṇ*, *n* etc. which perform an exclusively positive function; no negative function is seen to have been ascribed to them anywhere. There are others like *g* etc. which perform an exclusively negative or neutral function; no positive function is seen to have been ascribed to them. There are also the *it*-sounds like *p* which perform both the positive and negative or neutral functions in different spheres.

8. *THE* IT-*ZEROES IN THE* MĀHEŚVARA SŪTRAS.

Besides the *it*-sounds studied above, we also find a different type of *it*-sounds which are not the product of the technical genius of Pāṇini and whose purpose is different from that of those discussed above. These are the *it*-sounds laid down in what are called the *Māheśvara Sūtras* which are in all fourteen and which enumerate all the phonemes of the Sanskrit language. The *it*-sounds in this case are all attached at the end of each of the *Māheśvara Sūtras*. They are in all 13: *ṇ*, *k*, *ṅ*, *c*, *ṭ*, *m*, *ñ*, *ṣ*, *ś*, *v*, *y*, *r* and *l* of which the sound *ṇ* occurs in two places i.e. in the *sūtras aiuṇ* and *laṇ*. These sounds are not phonetically different from the regular phonemes of the Sanskrit language. Neither do they satisfy any phonetic or linguistic principle, nor do they help us in studying the arrangement either of the *Māheśvara sūtras* or of the Sanskrit phonemes therein. Since they all are repeated (all occur two times: in the middle of the *sūtras* as regular phonemes and at the end of the *sūtras;* the sound *ṇ* occurs three times: in the *sūtras, aiuṇ, laṇ and ñamaṅaṇanam*) they do not satisfy even the primary principle of brevity. Why then are they included?

Pāṇini, as a skilled technician, easily makes out the meaning in their inclusion and utilises them for a purpose. In the *sūtra*: *hal antyam*, 1.3.3, he terms all these final, consonantal sounds as *it and in the sūtra, ādir antyena sahêtā*, 1.7.71 he lays down a process by which one can form different sets or abbreviations of phonemes with the help of these final sounds. The *sūtra* 1.1.71 lays down that any non-*it*-sound in the *Māheśvara Sūtras*, taken with any of the following — and *not preceding* — *it*-sounds, would signify itself as well as all those sounds which come in between itself and the final sound.[17] And here we get what is called by the Sanskrit grammarians 'a *pratyāhāra*' (lit. an abbreviation),[18] a set, which could be made to signify all the sounds enclosed within the given limits. Thus, the initial, non-*it* phoneme *a* of the first *Māheśvara Sūtra*: *aiuṇ*, taken with any of the succeeding final, *it*-sound, say *c* or *ṭ* would make a *pratyāhāra* or set as *ac* or *aṭ* and would stand for all the sounds enclosed between the

17 *cf.* BD on 1.1.71: *antyenêtā sahita ādir madhyagānāṁ svasya ca saṁjñā syāt.*
18 *cf. Kāśikā* on the *sūtra* 1.1.71: *pratyāhriyante saṁkṣipyante varṇāḥ yasmin.*

limits *a* and *c* or *ṭ*. Thus, the set *ac* encloses and signifies the sounds: *a, i, u, ṛ, ḷ, e, o, ai* and *au;* and the set *aṭ* encloses and signifies the sounds: *a, i, u, ṛ, ḷ, e, o, ai, au, h, y, v,* and *r*. But it must be remembered here that while counting the included sounds, all the *it*-sounds of the *sūtras* in between should be excluded. Thus, the set *ac* or *aṭ* does not signify the final *it*-sounds *viz. ṇ, k, ṅ, c* and *ṭ* but includes only the non-*it* sounds, because, as they are termed as *it*, they amount to zero according to the Pāṇinian *sūtra. tasya lopaḥ*, 1.3.9, after they have served the purpose of set-formation.

The final, consonantal sounds of each of the *Māheśvara Sūtras*, therefore, which seem in the beginning as unnecessary and meaingless are now found to be of utmost necessity and full of meaning from the point of view of descriptive technique. These final sounds, termed as *it* and introduced for technical purposes, therefore, occur here in the capacity of extra-linguistic, technical symbols employed to facilitate the formation of different sets required in different grammatical circumstances and their zero is logically as necessary as that of all other extra-linguistic operational symbols discussed above. Pāṇini, therefore, lays down their zero in the *sūtra*, 1.3.9. The total number of *pratyāhāras* thus formed by combining the regular phonemes of the *Māheśvara Sūtras* with the 13 extra-linguistic *it*-sounds is 305, out of which only 40 sets have been used by Pāṇini in his grammar.

9. *SOURCES OF THE PĀṆINIAN* IT-*SAMJÑĀ*

We save seen that the author of the *Māheśvara Sūtras* has introduced different sounds at the end of each of the 14 *sūtras*. We have also seen that Pāṇini has also introduced many sounds as differentiating agents and operational symbols. Both types of sounds are called *it*. We also know that the *Māheśvara Sūtras* are prior to the Pāṇinian *Sūtras* which depend on the former for the technique of *pratyāhāra*-formation. All these facts, therefore, lead us to the obvious conclusion that Pāṇini found the clue for his technique of the *it-saṁjñā* in the *Māheśvara Sūtras*. The difference between the *it*-sounds in the *Māheśvara Sūtras* and those introduced by Pāṇini is that while the function of the former is limited to the formation of the *pratyāhāras* or sets, the function of the latter is extended to a larger field viz. to suggest differentiation and grammatical operation. While the function of the former is always positive viz. to form the sets and *never* to de-form them, the function of the latter is both positive and negative, viz. to bring about or nullify a grammatical operation. While the former *it*-sounds are attached only at the end of the *sūtras*, the latter are attached in the beginning, in the middle or at the end of the terminations, *dhātus* etc. according to convenience.[19] The only similarity between the *it*-sounds of the *Māheśvara Sūtras* and of Pāṇini is that they have a specific function to perform and as soon as they have served their purpose, they retire from the scene.

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19 *cf.* the *dhātu ṭuośvi* 'to go, to grow, to increase' etc. where the *it*-sound *o* is in the middle; *cf.* the *dhātu, olaḍi* in which the same *o* is in the initial position; also *cf.* the *dhātus, bhujo, rujo etc.* where the *it*-sound *o* is attached at the end of the *dhātus*.

We do not know from where the *Māheśvara Sūtras* got the clue for employing such a technique, since no grammatical, technical or logical work prior to the times of the author of the *Māheśvara Sūtras* has come down to us. It is to be remembered here in this connection that the use of sounds as technical symbols or substitutes for numbers and unknown quantities is well known to mathematics; and the ancient Indian astronomers and mathematicians, including the comparatively modern astronomer Bhāskarācārya, have used sounds for mathematical numbers. Have they all got a clue from *Maheśvara* or Pāṇini? Moreover, the technique which seems to be very simple in the *Māheśvara Sūtras* seems to have evolved into a highly complex and hence mature one in Pāṇini's grammar. Does this fact indicate a sufficiently long time-interval between the *Māheśvara Sūtras* and the Pāṇinian *Sūtras*?

KĀLIDĀSA

AN ASSESSMENT BY

ĀNANDAVARDHANA

By

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1. *Introduction*

Rhetoricians in Sanskrit, as a rule, do not directly subject any poet to their critical study as their main interest consists in formulating and expounding poetic theories. Ānandavardhana, probably the most original and outstanding critic in Sanskrit literature, is no exception to this rule. His contribution to literary criticism, as is well known, is the theory of *Dhvani* or suggestion in poetry which he has enunciated and expounded with great thoroughness in his immortal work *Dhvanyāloka*. In the course of expounding the theory, for the purpose of illustration, he has profusely drawn upon the works of many eminent poets like Kālidāsa. The passages which he has cited could not have been mechanically extracted from their sources as and when the necessity for various types of illustrations was felt. It will only be reasonable to presume that they got stuck to the critic's memory as the best specimens of poetry which impressed him in the course of his leisurely study of different authors. He has not only cited passages from Kālidāsa's works with aesthetic appreciation and critical comments but has also made some interesting observations of a general character regarding the poet and his works. On the basis of this material of a sizable nature, an attempt is made in this monograph to reconstruct the aesthetic reaction of the critic to Kālidāsa's poetry. In other words, it is attempted here to envisage with the available material, how Ānandavardhana would have appreciated Kālidāsa had the critic been focusing his mind on the poet instead of the theory of suggestion. While Ānandavardhana's appreciation of Kālidāsa appears only in an indirect form in the context of his exposition of the *Dhvani* theory, the present study seeks to present it in direct relation to the poet.

2. *General estimate*

In the history of literary criticism in Sanskrit, the Dhvani school followed the Rīti school. The latter made an attempt to establish the doctrine that style or diction is the soul or essential feature of poetry[1] but it did not meet with universal acceptance. While the theory was being formulated and even after it was regularly systematised by Vāmana the poeticians who were dissatisfied with it opposed it with vehemence[2] and they have tried to establish that sound does not count very much in poetry and that what is really important in it is the sense or the content in general. It appears that the Dhvani theory was ushered in soon after this controversy subsided and the consensus of opinion among critics was in favour of adopting the view that sense is the most important factor in poetry. In fact, the Dhvani theory is built on the bed-rock of the axiom that sense that appeals to *sahṛdayas* (responsive and judicious readers) is the soul of

1 Rītirātmā kāvyasya. Vāmana's *Kāvyalaṅkāra Sūtra*. II. 6.

2 Asphuṭasphuritam kāvyatattvametadyathoditam /
Aśaknuvadbhirvyākartum rītayaḥ saṁpravartitāḥ //
The *Dhvanyāloka* (abbreviated *Dhv.*) p. 517, Kasi Sanskrit Series 135, (1940)

poetry.[3] The protagonists of the Dhvani school go a step further and declare that it is the suggested sense that it is the soul of poetry and not the sense in general.[4]

Having assumed the stand that the real merit of poetry consists in suggestiveness, one finds that it is nothing but logical to maintain that the greatness of a poet depends on the suggestive character of his works. To achieve greatness, a poet should become conscious of the importance of suggestion and master the necessary technique and successfully press it into service in his poetic compositions. A poet aspiring for recognition as a Mahākavi (great poet) should assiduously cultivate mastery over the sense and the word that possess the power of suggestion.[5] It is only by the effective employment of suggested sense and suggestive expressions that a poet attains the status of a Mahākavi; on the contrary, if he confines himself, in the conventional way, to the expressed sense and to words conveying the ordinary meaning, he is bound to fail in realising his ambition.[6] A great poet should use the words and ideas in such a manner as to foster suggestion especially that of *rasa* or sentiment. This is held to be his main function by the followers of the Dhvani school.[7] A Mahākavi inspired with the spirit of Dhvani would harmonise the ideas and figures with the suggestion of sentiment in a spontaneous manner by a single effort of his mind without any distraction.[8] In brief, the Dhvani school holds the view that only the poet whose work overflows with suggestion[9] which resembles the physical charm of a woman[10] deserves the title of Mahākavi.

In Ānandavardhana's view, according to the standard set forth above, there were only two or three or at the most five or six Mahākavis in Sanskrit. Of course they do not include Vyāsa or Vālmīki as they are placed on a higher pedestal. In discussing different problems regarding the Dhvani theory, Ānandavardhana cites about one hundred and fifty passages; of these while many are not yet traced to their sources, a sizable number is traced to the works of eminent poets like Kālidāsa, Bhaṭṭanārāyaṇa, Bāṇa, Śrī Harṣa, Mayūra, Amaruka, Dharmakīrti and others. It may be pointed out here that he had no false modesty and did not refrain from citing a few of his own verses too as illustrations. In the circumstance, it is not easy to fix with any precision the Mahākavis he had in view when he counted them in his mind, up to six, in a

3 Yo'rthaḥ sahṛdayaślāghyaḥ kāvyātmeti vyavasthitaḥ. *Ibid* p. 42.

4 Kāvyasyātmā dhvaniḥ. *Ibid.*, p. 9.
Kāvyasyātmā sa evārthaḥ. *Ibid.*, p. 84.

5 So'rthastadvyaktisāmarthyayogī śabdaśca kaścana /
Yatnataḥ pratyabhijñeyau tau śabdārthau mahākaveḥ // *Ibid.*, p. 97.

6 Vyaṅgyavyañjakābhyāmeva suprayuktābhyām mahākavitvalābho mahākavīnām, na vācyavācakaracanāmātreṇa. *Ibid.*, pp. 97-98.

7 Vācyānām vācakānāṁ ca yadaucityena yojanam /
Rasādiviṣayeṇaitat karma mukhyaṁ mahākaveḥ // *Ibid.*, p. 400.

8 Rasavanti hi vastūni sālaṅkārāṇi kānicit /
Ekenaiva prayatnena nirvartyante mahākaveḥ // *Ibid.*, p. 222.

9 Sarasvatī svādu tadarthavastu niṣyandamānā mahatām kavīnām // *Ibid.*, p. 222.

10 Vibhāti lāvaṇyamivāṅganāsu. *Ibid.*, p. 49.

generous mood. However, it is certain that among the Mahākavis whom he recognised as such, he consciously gave the pride of place to Kālidāsa as is clear from the statement that even though there are all kinds of poets in this world "only two or three, at the most five or six, are reckoned as Mahākavis, the most prominent among them being Kālidāsa".[11]

Ānandavardhana's admiration and partiality for Kālidāsa are borne out also by his profusely drawing upon the poet's works for the purpose of illustrating different aspects of Dhvani. While he cites only two or three passages each from other works like *Veṇīsaṁhāra, Ratnāvalī, Harṣacarita, Māgha* and *Amaruḳaśataḳa*, he cites about twenty stanzas from Kālidāsa's works, *viz. Kumārasaṁbhava, Meghadūta, Viḳramorvaśīya* and *Śāḳuntala*. He also refers to certain descriptions in and peculiar features of these works.

3. *Beauty of Suggestion*

Ānandavardhana, as indicated above, applied the standard of suggestiveness in evaluating Kālidāsa's poetry. According to him the descriptions of Kālidāsa have a freshness and charm of their own due to the predominating element of suggestion. While ordinary poets express their ideas in a crude and blunt manner and use words in their conventional meaning, Kālidāsa successfully employs the technique of suggestion in his composition. The reactions of young girls of marriageable age, on hearing talks about their marriage and their prospective bridegrooms, are described by a poet as follows without any suggestive beauty:

> "When the particulars regarding the bridegroom are discussed girls with their faces bent down indicate their innermost desire by horripilations".[12]

The bashfulness and eagerness of the girls are stated bluntly in this description. This may be compared with a description by Kālidāsa in his *Kumārasaṁbhava*. Due to the efforts of Manmatha the god of love, Lord Śiva fell in love with Pārvatī and a party of sages headed by Aṅgiras was sent to Himavān to negotiate the marriage. The sages reached the abode of Himavān and presented the matter to him. At this time Pārvatī was standing by the side of her father eagerly following the conversation. Her reactions are described by Kālidāsa as follows:—

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11 Kālidāsaprabhṛtayo dvitrāḥ pañcaṣā vā mahākavaya iti gaṇyante. *Ibid.*, p. 93.
The following stanza may be recalled here:
Mahākavīnāṃ gaṇanāprasaṅge
Kaniṣṭhikādhiṣṭhitakālidāsaḥ /
Adyāpi tattulyakaverabhāvād
Anāmikā sārthavatī babhūva //

12 Kṛte varakathālāpe kumāryaḥ pulakodgamaiḥ /
Sūcayanti spṛhāmantarlajjayāvanatānanāḥ // *Ibid.*, p. 528.

"When the divine sage has been speaking like this, Pārvatī who was standing beside her father counted the petals of her toy-lotus, keeping her face bent down".[13]

Regarding the suggestion in the description, Ānandavardhana observes that, the expressed idea of the counting of petals is not important by itself; on the other hand, being consigned to a subordinate position it suggests a mood or feeling that is auxiliary to the sentiment of love.[14] There is difference of opinion among rhetoricians regarding the exact nature of the mood that is suggested here. While Abhinavagupta holds the view that Pārvati's bashfulness (*lajjā*) is suggested here,[15] Viśvanātha points out that it is the concealment of her mental working (*avahitthā*).[16] We may state however, that Pārvatī's remaining near her father, her down-faced pose and counting of the petals respectively suggest, her eagerness to marry Śiva, her bashfulness and her effort to conceal from others that she is following the conversation regarding her marriage. This attempt to conceal her interest in the subject of conversation from her father and the sages together with her pose abundantly suggests her bashfulness. Kādidāsa's suggestive description is far superior to the other conventional description. It not only reflects his great poetic genius but also bears ample testimony to the potentiality of suggestion in lending charm to poetry—charm which is like the appearance of the vernal bloom in trees.[17]

The suggested sense in poetry dawns on the mind of the reader, after he grasps the expressed sense.[18] But this order of succession is not invariably perceptible. As a rule it is perceptible (*saṁlakṣyakramadhvani*) when an idea or figure is suggested and it is imperceptible (*asaṁlakṣyakramadhvani*) when a sentiment or mood is suggested. Sometimes, even in the suggestion of a mood, this order becomes perceptible.[19] As pointed out

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13 Evam vādini devarṣau pārśve pituradhomukhī /
Līlākamalapatrāṇi gaṇayāmāsa Pārvatī. //
See *Kumārasaṁbhava* VI. 84. See also *Dhv.* pp. 248 and 528.

14 Atra hi līlāpatragaṇanamupasarjanīkṛtasvarūpam śabdavyāpāram vinaivārthāntaram vyabhicāribhāvalakṣaṇam prakāśayati. *Dhv.* p. 248.

15 Arthāntaramiti lajjātmakam. *Locana,* p. 248. Kasi Sanskrit Series 135. (1940)

16 *Sāhityadarpaṇa* edited by Ramachandra Tarkavagisa BHATTACHARYA, pp. 163 and 214. See also Mallinātha's commentary on the stanza.

17 Vāṇī navatvamāyāti pūrvārthānvayavatyapi. / *Dhv.* p. 522.
Sarve navā ivābhānti madhumāsa iva drumāḥ. // *Ibid.*, p. 528.

18 Vācyārthapūrvikā tadvatpratipattasya eva vastunaḥ. *Ibid.*, p. 100.

19 Na cāyamalakṣyakramavyaṅgyasyaiva dhvanerviṣayaḥ. *Dhv.* p. 248.
See also—Yadyapi rasabhāvādirartho dhvanyamāna eva bhavati na vācyaḥ kadācidapi, tathāpi na sarvosalakṣyakramasya viṣayaḥ. *Locana.* p. 248.

by Ānandavardhana, the stanza cited above falls under this category.[20] It does not spontaneously suggest Pārvatī's shyness, for the down-faced pose and the counting of the petals of the toy-lotus could also be reckoned as natural in girls and without any special significance. So in order to comprehend the suggestion of bashfulness one has to take into account other factors such as the practice of penance by Pārvatī to obtain Śiva as her spouse, their secret meeting and the matrimonial alliance that is being discussed between the sages and Himavān.[21] It is an instance of *saṁlakṣyakramadhvani* (suggestion in which the order of occurrence as between the suggester and the suggested is perceptible) only when viewed from the angle of the suggestion of bashfulness. But the bashfulness that is suggested being an auxiliary mood could suggest the sentiment of love, in which case the stanza will have to be taken as an instance of *asaṁlakṣyakramadhvani* (suggestion in which the order of occurrence as between the suggester and the suggested is imperceptible).[22] Thus one may easily recognise in the description two varieties of suggestion, one being conducive to the other. According to Ānandavardhana this is an example of *dhvanisaṅkara* or the coalescence of the two types of suggestion.[23] In this description what is ultimately suggested is the sentiment of love and it is the predominant factor responsible for the poetic beauty of the description.[24]

In the course of his comment on the above description, Ānandavardhana refers to a context in the *Kumārasaṁbhava* in which the sentiment of love is suggested by the auxiliaries that are directly expressed. The spring season, which is an excitant of love, sets in and even the bees and beasts come under the influence of love. Pārvatī who loved Śiva with all her heart, adorns herself with vernal flowers which excel ordinary jewels in beauty. Slightly stooping on account of her developed breast and dressed in clothes of red hue she goes to Śiva's hermitage like a moving creeper laden with flowers and fresh tendrils.[25]

20 Jagannātha Paṇḍita who discusses the nature of suggestion in the stanza, is of the view that in such cases the suggested mood may be treated merely as an idea. See—*Saṁlakṣyakramatayā vyajyamānasya ratyādestu vastumātrataiva, na rasāditvam. Rasagaṅgādhara.* p. 131. Kavyamala—12.

21 Padmadalagaṇanam adhomukhītvam cānyathāpi kumārīṇām sambhāvyata iti jhaṭiti na lajjāyām viśramayati hṛdayam, api tu prāgvṛtta tapaścaryādivṛttāntānusmaraṇena tatra pratipattim karotīti kramavyaṅgyataiva. *Locana,* pp. 249-50. See also *Rasagaṅgādhara.* pp. 130-31.

22 Rasastvatrāpi dūrata eva vyabhicārisvarūpe paryālocyamāne bhavatīti tadapekṣayā alakṣyakramataiva. Lajjāpekṣayā tu tatra lakṣyakramatvam. *Locana.* p. 250.

23 Tatra svaprabhedasaṅkīrṇatvam kadācid anugrāhyānugrāhakabhāvena.
Yathā—evam vādini devarṣau ityādau. Atra hyarthaśaktyudbhavanuraṇanarūpavyaṅgyadhvaniprabhedena alakṣyakramavyaṅgyadhvaniprabhedo anugṛhyamāṇaḥ pratīyate. *Locana,* p. 502.

24 Yadā vakroktim vinā vyaṅgyo arthastātparyeṇa pratīyate tadā tasya prādhānyam. Yathā "evam vādini devarṣau" ityādau. *Dhv.* p. 482.

25 Āvarjitā kiñcidiva stanābhyām
Vāso vasānā taruṇārkarāgam /
Paryāptapuṣpastabakāvanamrā
Sañcāriṇī pallavinī lateva // *Kumārasaṁbhava,* III. 54.

Along with her maids she is admitted to the presence of Śiva, whose yogic meditation is obstructed probably due to psychic reasons. When she pays her homage, he blesses her "May you be blessed with a husband who loves none but you".[26] Then she offers him a rosary of lotus-seeds which he accepts in order to oblige her as she is devoted to him. Kāma the god of love avails himself of this opportunity to direct his piercing dart towards Śiva in order to bring him under the spell of love. Śiva loses his mental moorings and is moved just as a calm sea is moved when the moon rises on the horizon, and he looks at her charming face intently without any interruption.[27] Pārvatī also reacts to the situation most naturally. She stands shy with her face turned aside and her eyes unsettled, disclosing her love for Śiva by the horripilation on her limbs.[28] Keeping this description in view and fully realising the delicate beauty of the erotic sentiment that permeates it, Ānandavardhana observes that the auxiliaries of the sentiment such as the description of spring, the portrayal of Pārvatī, the discharging of Manmatha's arrow, the actions of Śiva as his mind becomes purturbed etc. are all directly expressed quite unlike the bashfulness, that is suggested in the description discussed above.[29] It may be pointed out that, almost all varieties of the auxiliaries of *śṛṅgāra* or the sentiment of love are depicted in the present description. Pārvatī is the *ālaṁbanavibhāva* and her horripilation and shyness are *sāttvikabhāva* and *vyabhicāribhāva* respectively. Śiva is the *āśraya* of love and his glances are the *anubhāva*. Ānandavardhana has referred to this description as an instance of the suggestion of a sentiment brought about by factors that are expressed. He has done so after properly analysing the description from the point of view of suggestion and fully appreciating the machinery of suggestion so effectively employed by Kālidāsa.

4. *Depiction of conflicting moods*

In lyrics, epics, dramas and other similar literary compositions various rasas or sentiments are bound to be described; but a poet intent on enhancing the emotional appeal of his work should adopt one of them as the principal sentiment, assigning to others only a subordinate psition.[30] This is a principle enunciated with appropriateness, by the founders of the Dhvani school, for strict adherence by the poets. It requires great skill and training on the part of the poets to harmonise different sentiments in their

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26 Ananyabhājam patimāpnuhi. *Ibid.*, III. 63.

27 Harastu kiñcit pariluptadhairyaścandrodayārambha ivāmburāśiḥ /
Umāmukhe bimbaphalādharoṣṭhe vyāpārayāmāsa vilocanāni //
Ibid., III. 67.

28 Vivṛṇvatī śailasutāpi bhāvam
Aṅgaiḥ sphuradbālakadambakalpaiḥ /
Sācīkṛtā cārutareṇa tasthau
Mukhena paryastavilocanena // *Ibid.*, III. 68.

29 Yathā kumārasaṁbhave madhuprasaṅge vasantapuṣpābharaṇam vahantyā devyā āgamanādivarṇanam manobhavaśarasandhāna- paryantam śambhośca parivṛttadhairyasya ceṣṭāviśeṣavarṇanādi sākṣācchabdaniveditam. *Dhv.* p. 248.

30 Prasiddhe' pi prabandhānām nānārasanibandhane /
Eko raso' ṅgīkartavyasteṣāmutkarṣamicchatā // *Ibid.*, p. 378.

works, giving predominance to one of them and keeping others as subsidiaries. The description of conflicting sentiments and moods without prejudice to the principal one, offers a challenge to the genius of a poet. Kālidāsa, in the estimate of Ānandavardhana, takes up this challenge and comes out successful in all glory. This becomes clear, from the critical analysis and appreciation of a lyrical stanza in the *Dhvanyāloka.*

Urvaśī, the celestial nymph, pays a visit to Kubera's palace and on her return, Keśī, a demon abducts her by force, along with her friend Citralekhā. Rambhā and Menakā, the other two companions who accompany Urvaśī seek the help of king Purūravas. He rescues her from the grip of the terrible demon and this leads to their mutual love which they express in unequivocal terms. Urvaśī gets back to heaven, but love draws her down to earth. They meet and spend some time in bliss but the nymph is called to heaven to take the role of Lakṣmī in a drama directed by Bharata.

In the drama she unwittingly mentions the name of Purūravas, instead of Puruṣottama and spoils the dramatic effect. This makes Bharata curse her but the sympathetic Indra allows her to go to the earth and live with Purūrvas for a time. The king enjoys a holiday with Urvaśī in the Gandhamādana grove, on the peak of Kailāsa, and she is unexpectedly converted into a creeper in the Kumāravana there. The king's sorrow knows no bounds and in moving language he gives expression to his ardent love and pangs of separation. A lyrical stanza marks the sentiment of love in its highest pitch. The poet makes the hero reflect for a while on the nobility of his birth in the lunar race, the moral standards he has imbibed through learning and the possible reaction of the wise people to his undignified behaviour in this love affair. This reflection leads the king to doubt the justifiability of his love for Urvaśī who is a courtesan, and of the feelings of sorrow in her separation. But this trend of thought is not very strong and it is frequently interrupted and over-powered by the forcible manifestation of his deep-rooted love for her. This is what we see in the following soliloquy of the hero, cited by Ānandavardhana.

Where is misdeed and where the spotless race of the moon?
Would that I see her again!
My learning should resist all evil;
But how lovely is her face even in anger!
What will the pure and wise ones say about this?
Ah, she is not to be had by me even in dream!
Take courage, my heart!
Which youth will be so lucky
As to drink (the honey) of the lips?[31]

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31 Kvākāryam śaśalakṣmaṇam kva ca kulam, bhūyo'pi dṛśyeta sā
Doṣāṇām praśamāya naḥ śrutam, aho kope'pi kāntaṁ mukham /
Kim vakṣyatyapakalmaṣāḥ kṛtadhiyaḥ, svapne'pi sā durlabhā;
Cetaḥ svāstyamupaihi, kaḥ khalu yuvā dhanyo' dharam pāsyati //

This stanza is pointed out to be interpolated in the fourth Act of *Vikramorvaśīya.* (See. *Dīdhiti,* a commentary on *Dhvanyāloka.* Haridas Sanskrit Series 66, p. 262). The present writer is not sure of the authorship of the stanza. However it is dealt with here as there is remote chance of its being composed by Kālidāsa. For the translation of the stanza the author is indebted to Dr. K. KRISHNAMOORTHY.

In the mood of reasoning (*vitarka*) the hero begins to feel that his love for the celestial nymph is unbecoming of him. This mood is obviously akin to the sentiment of *śānta* (quietism) and opposed to love. But it is immediately suppressed by the ardent desire (*autsukya*) of the hero to meet the heroine again, rehabilitating the sentiment of love to its predominant position. Again, the thought (*mati*) that by virtue of his learning, he should abandon the evil of love which is out of place, is counteracted by his memory (*smṛti*) of her lovely face; the doubtful mood (*śaṅkā*) regarding the reactions of the intelligentsia, is dispelled instantaneously by the feeling of pity (*dainya*) for she cannot be seen even in his dream as he is spending sleepless nights; the attempt at self-possession (*dhṛti*), is thwarted at the next moment by his anxiety (*cintā*) to enjoy her company.[32] In all these cases, pairs of mutually opposed moods, one connected with *śānta* and the other with *śṛṅgāra*, struggle for predominance, but the auxiliaries of love easily vanquish the other moods with the result that the sentiment of love shines forth as victor in all glory.[33] This skill in preserving the importance of a sentiment and enhancing its suggestion, when moods alien to it are described, has come up for appreciation at the hands of Ānandavardhana. He quotes the stanza to illustrate the principle that once the principal sentiment is put on a firm footing, it will not be a defect to describe discordant sentiments or moods which can be easily suppressed.

5. *Inanimate objects and Sentiment*

Kālidāsa's muse does not lose its emotional appeal even when, he describes inanimate objects. Very often, he invests lifeless objects with sentient characteristics by intimately associating them with human affairs or poetically personifying them or transforming them into human beings. This aspect of Kālidāsa's poetry does not escape Ānandavardhana's notice. He defines and explains the *rasālaṁkāra*, with a view to establishing that, it is different from *rasadhvani*. In the course of this discussion he rejects the view of some immature critics who maintain that there is no scope for beauty of sentiment in the descriptions of inanimate objects.[35] He argues that even when inanimate objects are described, sentiments can be suggested by imaginatively attributing to them the behaviour of sentient beings and if this position is not accepted, it will amount to judging erroneously the bulk of poetic compositions as bereft of emotional

32 Vitarkamautsukyena, matiḥ smṛtyā, śaṅkā dainyena, dhṛtiścintayā ca bādhyate. *Locana.* p. 368.

33 Bādhyatvam hi virodhinām śakyābhibhavatve sati, nānyathā. *Dhv.* p. 365.

34 Vivakṣite rase labdhapratiṣṭhe tu virodhinām /
Bādhyānāmaṅgabhāvam vā prāptānāmuktiracchalā // *Ibid.*, p. 365.

35 Cetanānām vākyārthībhāvo rasādyalaṅkārasya viṣayaḥ. *Ibid.*, p. 198.

beauty even though they really are its treasure house.[36] To substantiate this view Ānandavardhana cites two descriptions from Kālidāsa's *Vikramorvaśīya.*

Purūravas and Urvaśī are sojourning in the Gandhamādana grove and enjoying themselves to their heart's content. It so happens that the king gazes with all his soul on Udayavatī, a beautiful young woman of the Vidyādhara race, while she is sporting on the strands of the Ganges. This angers Urvaśī to the core and discarding the entreaties of the King, she leaves him and unwittingly enters the Kumāravana forbidden to women. There, all of a sudden she is transformed into a creeper, as already mentioned above. Purūravas is thoroughly upset and with the indelible vision of Urvaśī moving away in her angry mood, he roams about the place in search of her. He comes exhausted to a mountain river and stops for a moment to refresh himself in the breeze that comes grazing the waves. The sight of the river in violent spate thrills him very much as it appears to be Urvaśī in anger transformed into the river and he fancies as follows:

With frowns transformed into waves, girdle into a string of fluttering birds, garment loosened with fury into foam, she hurries indolently with devious steps, brooding much over the wrongs done to her.[37]

This description even though of an inanimate object has great appeal due to its emotional flavour. The poet in sympathy looks upon the object of his description with the sophisticated eyes of the lover and it appears to him transformed in the manner suitable to his fancy. Urvaśī riled at her lover's disloyalty, claims monopoly over the poet's imagination and he sees her in her angry mood empathetically in an inanimate object like the river. His fancy superimposes the features, feelings and movements of Urvaśī on the river and the whole description turns out as beautiful for its emotional charm as that of any sentient character.[38] And as a result the sentiment of *vipralambha* or love in separation reaches spiral heights.[39]

Purūravas continues his passionate search for Urvaśī with a guilty conscience, and in the course of his wandering from place to place in the Gandhamādana grove, he is presented with *saṅgamamaṇi* or the jewel of union, by an anchorite. With the jewel in his hand he comes near a creeper, which in spite of its being flowerless enchants him to the very depth of his heart.

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36 Tanmahataḥ kāvyaprabandhasya rasanidhānabhūtasya nīrasatvamabhihitam syāt. *Ibid.,* pp. 200-201.

37 Taraṅgabhrūbhaṅgā kṣubhitavihagaśreṇiraśanā
Vikarṣantī phenam vasanamiva samrambhaśithilam /
Padāviddham yāntī skhalitamabhisandhāya bahuśo
Nadīrūpeṇeyam dhruvamasahanā sā pariṇatā//
Vikramorvaśīya, Act. IV, Verse 52, quoted in *Dhv.* p. 201.

38 Bhāvānacetanānapi cetanavaccetanānacetanavat /
Vyavahārayati yatheṣṭam sukaviḥ kāvye svatantratayā // *Dhv.* p. 498.

39 Abhinavagupta suggests that Purūravas feels that Urvaśī changed herself into a river for putting an end to her grief caused by separation from him. See—atha ca madviyogapaścāttāpāsahiṣṇustāpaśāntaye nadībhāvam gateti. *Locana,* p. 201.

The creeper appears to him very much similar to Urvaśī who regrets her separation from him. He says:

"This slender creeper with tendrils moist with rain, devoid of flowers and free from the humming of honey bees looks like her, sitting penitent with tearstained face and body unadorned, thinking in silence how she spurned my love."[40]

This creeper is identical with Urvaśī who had undergone the transformation in the Kumāravana. The magic powers of the *sangamamaṇi* restore her to her natural form and unite her with her lover. It is not improbable that Purūravas had a premonition that his beloved had changed into an inanimate object and that was probably why he felt that the mountain river too was Urvaśī transformed.

In both these instances Kālidāsa describes inanimate objects. By his poetic genius they have been rendered into objects the description of which affords every scope for the play of emotion. The poet's mind is full of emotion and he projects his mind on these inanimate objects with the result that he finds live feelings and human behaviour in them. That is why the Sanskrit rhetoricians say that in case the poet's mind is charged with emotion, all the objects he describes would get suffused with sentiment and in case the poet is void of emotion, his objects too will fail to rouse any sentiment.[41]

6. *Figures and Sentiment*

Imagery that delights *sahṛdayas* has got its own significance in poetry and Kālidāsa is really an adept in employing appropriate figures, particularly similes. For him there exists a world of imagery exactly corresponding to our world in all its details. Images which not only wonderfully correspond to the objects of description but reveal their beauty and significance are at the beck and call of the poet and the propriety and effectiveness with which he harnesses them are really marvellous. According to Ānandavardhana, *rasadhvani* in which a sentiment predominates is poetry *par excellence;* and in it figures should occupy only a subordinate position, effciently serving the suggestion of the sentiment. He finds Kālidāsa's poetry ideal in this respect. As borne out by the passages cited by Ānandavardhana from *Śākuntala* and *Meghasandeśa* Kālidāsa realised the proper relation between sentiment and figures, and mastered the technique of harmonising them in poetry.

Duṣyanta, the ruling prince of the lunar race happens to come to the hermitage of Kaṇva and see Śakuntalā at a distance, with her two companions, engaged in watering the plants in the grove. Bewitched by her celestial beauty he falls in love with her and

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40 Tanvī meghajalārdrapallavatayā dhautādharevāśrubhiḥ
Śūnyevābharaṇaiḥ svakālavirahādviśrāntapuṣpodgamā /
Cintāmaunamivāśritā madhulihām śabdairvinā lakṣyate
Caṇḍī māmavadhūya pādapatitam jātānutāpeva sā //
Vikramorvaśīya, Act. IV, Verse 66, quoted in *Dhv.* pp. 201-2.

41 Śṛṅgārī cet kaviḥ kāvye jātam rasamayam jagat /
Sa eva vītarāgaścet nīrasam sarvameva tat. //
Dhv. p. 498.

decides to observe her closely, himself hiding among the trees. From the hiding place he intently observes her features and movements and closely follows her conversation with her friends. His love grows steadily but he uses self-restraint since he is not sure whether the sage Kaṇva will give her in marriage at all. His conscience dictates that a Kṣatriya like him can marry her, yet he feels that he shall not unbridle his enthusiasm in the matter without ascertaining facts.

In this frame of mind he sees a black bee which leaves the jasmine and hovers about Śakuntalā's face taking the freedom of a lover. He says to himself as follows:

"As she looks at the bee through the quivering corners of her eyes, it touches her trembling body; time and again hovering about her ear it hums as if whispering some secret; even though she waves her hands it enjoys her love-sweet lips."

Observing this scene with rapturous attention Duṣyanta naturally recalls to his mind the blissful behaviour of a lover in the company of his beloved and consequently his heart surges with passionate desire to get united with Śakuntalā.[42] But as he is under the fetters of moral feelings he finds himself in a helpless condition to do anything for the fulfilment of his desire. So in this great agony of suppressed love and desperate mood he draws a contrast between himself and the bee declaring that the bee is lucky, while he is not, for he is bridled by moral considerations.[43]

The two outstanding figures here are *samāsokti* which suggests the behaviour of lovers and *vyatireka* which indicates the ardent desire of Duṣyanta. Both of these figures have got their own poetic beauty but they do not form the main source of charm in this lyrical passage. What is predominant is the sentiment of love, and the figures that are in perfect unison with it accelerate its suggestion in the most natural manner.

Kālidāsa is an adept not only in employing a figure with appropriateness but also in reducing it to the minimum required so that it may just serve to rouse poetic passion. He is conscious of the fact that unnecessary elaboration of a figure will spoil the emotional appeal in poetry. This aspect of Kālidāsa's poetic art is duly appreciated by Ānandavardhana who cites a lyric attributed to the poet, for illustrating the principle of the timely abandoning of a figure in *rasadhvani*.[44] The poet describes the lamentation of a lover afflicted by separation from his beloved. The lover addresses an Aśoka tree as follows:

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42 Kathametadīyakaṭākṣagocarā bhūyāsma, kathameṣā asmadabhiprāyavyañjakam rahovacam ākarṇyāt, katham nu haṭhādanicchantyā api paricumbanam vidheyāsma. *Locana*, p. 224.

43 Calāpāṅgām dṛṣṭim spṛśasi bahuśo vepathumatīm
Rahasyākhyāyīva svanasi mṛdu karṇāntikacaraḥ /
Karau vyādūnvatyāḥ pibasi ratisarvasvamadharam
Vayam tattvānveṣānmadhukara hatāstvam khalu kṛtī //
Śākuntala, Act I, Verse 20, quoted in *Dhv.* p. 224.

44 Kāle ca grahaṇatyāgau. *Dhv.* p. 223.

O, Aśoka, you are *rakta* (of red hue) due to tender leaves,
I am also *rakta* (fascinated) by the praiseworthy qualities of my beloved;
Śilīmukhas (black bees) swarm to you even as *śilī-*
mukhas (arrows) released from Cupid's bow come to me;
Kicks with the sole of *kāntās* (beautiful ladies) are delightful to you,
So are the kicks with the sole of my *kāntā* (beloved one) delightful to me;
Thus we are equal in all respects except for the
fact that while you remain *aśoka* (unafflicted),
Fate has made me *saśoka* (afflicted) [44a]

Explaining the rhetorical point at issue Ānandavardhana says that in this stanza the abandoning of the *śleṣa* (double entendre) that has emanated in a chain, in favour of *vyatireka* (poetic contrast) intensifies the sentiment in hand.[44b] The *double entendre* itself is employed in a manner very helpful to the suggestion of *vipralaṁbha* sentiment. The words *rakta*, *śilīmukha* and *kāntāpādatalāhati* with double meanings afford the basis for the simile (*upamāśleṣa*) and indicate respectively the passion of love, pangs of separation and desire for reunion, all of which suggest the sentiment of love in separation. Further as pointed out by Abhinavagupta the mention of the red tender leaves, the black bees and contact with the sole of ladies serves as *uddīpanavibhāva* or excitant of love.[44c]

The poetic talent reflected in the composition of the stanza and the manner in which the double entendre has been employed warrant the critic to imagine that the poet would naturally have been inclined to continue the chain of the figure and that he was capable of continuing it. But with his keen sense of propriety and awareness of the need for restraint, he cut short the chain as he was satisfied that the figure to the extent it was employed would amply serve the poetic purpose.[44d] This restraint, in the view of Ānandavardhana, should serve as a model to poets aspiring for distinction.

44a Raktastvam navapallavairahamapi ślāghyaiḥ priyāyā guṇaiḥ
Tvāmāyānti śilīmukhāḥ smaradhanurmuktāstathā māmapi /
Kāntāpādatalāhatistavamude tadvan mamāpyāvayoḥ
Sarvam tulyamaśoka kevalamaham dhātrā saśokaḥ kṛtaḥ //
According to Kṣemendra, Kālidāsa is the author of this stanza. See—*Kavikaṇṭhābharaṇa*, p. 129. Kāvyamāla IV.

44b Atra hi prabandhapravṛtto' pi śleṣo vyatirekavivakṣayā tyājyamāno rasaviśeṣam puṣṇāti. *Dhv.* p. 228.

44c Ahamapi raktaḥ prabuddhānurāgah. Tatra ca prabodhako vibhāvastadīyapallavarāga iti mantavyam. Evam pratipādamādyo'rtho vibhāvatvena vyākhyeyaḥ— *Locana*, p. 227.

44d Jagannātha Paṇḍita explains the significance of the figure in a different way. According to him in the stanza the similarity between the lover and the tree is off set by the poetic contrast. See Prakṛte upamālaṅkāradūrīkaraṇameva rasānuguṇatayā ramaṇīyam—*Rasagaṅgādhara*, p. 476.

Even a cursory appreciation of the imagery in Kālidāsa's works would warrant the conclusion that images suggest themselves to him spontaneously as he is engaged in poetic creation. In spite of a rush of images in close succession to one another his sense of poetic proportion usually curbs any possible enthusiasm to overburden his poetry with imagery. But it must be admitted occasionally he has succumbed to the temptation of overdoing the imagery in his lyrics. As an instance Ānandavardahana cites the following stanza from the *Meghasandeśa*:

"I see your body in the *priyaṅgu* creeper, your glances in the eyes of the startled antelope, the radiance of your face in the moon, your tresses in the pea-cock's tail, and the beauty of your brows in the tiny ripples of streams; but beloved one, not a single object shows your entire likeness."[44c]

Here there is a series of fancies (spreading over three lines in the quatrain) which may create an impression that the poet is guilty of overdoing the imagery. Without any special effort on his part the images that resemble the various parts of the body of the heroine, occur to him and he employs them to embellish his poetry, probably forgetting for a moment the impropriety of overdoing figures of speech.

Ānandavardhana points out that even though there is overdoing of figures in the above instance, there is also a redeeming feature. In spite of the series of fancies employed by th poet, we do not feel that they are hanging heavy on the stanza because they are so natural and consciously kept subservient to the sentiment of love which predominates the entire stanza. By the time we fully appreciate the stanza the separate entity of these figures will not be felt as they surrender their own charm for suggesting *vipralaṁbha* or the sentiment of love in separation. The lovers recollections of his beloved and of her various charms, on seeing corresponding images in nature, stir his deep love. His grief and yearning for re-union are suggested by the lamentation that her entire likeness is not perceived any where. Responding to these moods the reader becomes overwhelmed with the sentiment of love in separation and finds himself in a state in which he does not think about the overdone figures.[45] In brief, Ānandavardhana appears to be of the view that even though Kālidāsa occasionally overdoes figures in his poetry he takes ample care to see that they occupy only a subordinate position and never mar or eclipse the emotional beauty of his lyrics.

44c Śyāmāsvaṅgaṁ cakitahariṇīprekṣaṇe dṛṣṭipātam
Gaṇḍacchāyāṁ śaśini śikhināṁ barhabhāreṣu keśān /
Utpaśyāmi pratanuṣu nadīvīciṣu bhrūvilāsān
Hantaikstham kvacidapi na te bhīru sādṛśyamasti //
Meghasandeśa. II.41. Quoted in *Dhv*. p. 232 to illustrate the principle—nirvyūḍhāvapi cāṅgatve yatnena pratyavekṣaṇam.
Compare with the statement of the poet that in Pārvatī the beauty of all images is concentrated. See *Kūmārasaṁbhava*, Canto I, Verse 49.

45 Abhinavagupta points out that the fancies suggest that the lover roams about in the forest in a love-lorn condition. See—ekasthasādṛśyābhāve hi dolāyamāno'ham sarvatra sthito na kutracidekasya dhṛtim labha iti bhāvaḥ. *Locana*, p. 233.

7. *Suggestive Words*

The illustrations cited in the *Dhvanyāloka* and the comments thereon, afford enough evidence to believe that Ānandavardhana subjected Kālidāsa's poetry to a detailed textual analysis. As a result of this analytical study the critic should have got the impression that the poet bestowed great attention on choosing not only his words but even the suffixes, prefixes and particles. In Ānandavardhana's view, words and particles function as efficient suggesters and contribute considerably to the beauty of Kālidāsa's poetry. A few examples given by the critic to illustrate the point, are discussed below.

In the *Meghadūta*, Yakṣa, a lover in separation, goads the cloud to convey his message to his beloved. He tells the cloud that by undertaking the errand it will incidentally be doing a service to other women who are separated from their lovers for when the cloud appears in the sky they will certainly gain confidence that their lovers will return to them without delay. This is said on the assumption that no lover will remain away from his beloved when the rainy season is indicated by the appearance of clouds in the sky. In this context the poet employs the adjective *sannaddha* with reference to the cloud.[46]

Ānandavardhana points out that this word is suggestive in character. The expressed meaning of the word is "ready for battle" and hence this adjective is not literally applicable to the cloud which is an inanimate object. So by indication we may derive the meaning 'raised' (*udyata*) in the sky.[47] What is suggested here is that the cloud causes great agony to the lover who is separated from his beloved as if it is a relentless, irresistible and reckless enemy.[48] This poignant reaction to the appearance of the cloud ultimately suggests *vipralambha* or love in separation.

In the course of its journey to Alakā, the cloud has to pass through the beautiful and sacred town of Viśālā. The river Śiprā is a remarkable feature of the town and the breeze coming from it is cool and pleasing. Kālidāsa characterises the breeze as fragrant due to its *maitrī* with the smell of the blossomed lotus flowers.[49] The word '*maitrī*' used here is of a suggestive character. It literally means 'friendship', but the breeze and smell of the lotus being inanimate objects, the literal sense of the word stands annulled here and hence the indicated sense of 'contact' (*saṁsarga*) that suits the

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46 Kaḥ sannaddhe virahavidhurāṁ tvayyupekṣeta jāyām *Meghadūta* Part I, Verse 8, cited as an instance of *Atyantatiraskṛtavācyadhvani* in *Dhv.* p. 289. For a similar use of the word see—navajaladhara: sannaddho'yam na dṛptaniśācaraḥ. *Vikramorvaśīya*, Act. IV. Verse 7.

47 According to some, the indicated meaning of the word is *uddhata* (haughty or puffed up). See *Locana*, p. 291.

48 Niṣkaruṇatvāpratikāryatvāprekṣāpūrvakāritvādayo dhvanyante. *Locana*, p. 291.

49 Sphuṭitakamalāmodamaitrīkaṣāyaḥ. *Meghadūta*, I. 31. quoted in *Dhv.* (p. 511) as an instance of *Avivaksitavācyadhvani*.

context has to be adopted. While the word inicates this sense of association, it suggests that by absorbing abundantly the smell of the lotus flowers the breeze has become extremely fragrant.

Hiding himself behind the trees in Kaṇva's hermitage, Duṣyanta interestedly observes Śakuntalā at a distance and appreciates her extraordinary beauty. Even though she is clad in bark-garments her dress appears to him to add considerably to her personal charm and ultimately he generalises that anything can be an embellishment for those endowed with sweet (*madhura*) physical appearance.[50] Ānandavardhana draws our attention to the use of the word *madhura* (sweet) in its suggestive significance. Physical appearance cannot be said to be sweet in the literal sense of the word, as sweetness is a taste to be relished by the tongue. So the expressed meaning of the word has to be discarded and the word is to be understood in some derived sense such as a source of pleasure and satisfaction. Besides this meaning, the word suggests the excessive beauty of Śakuntalā, which justifies the great fascination Duṣyanta feels for her.[51]

In the *Meghadūta*, the Yakṣa describes to the cloud the residence of his beloved at Alakā. In the description he mentions a pea-cock that sits in the evening on a golden staff adorned with precious jewels and set on a glass pedestal on the pleasure-mountain. This pea-cock is a pet of his beloved and he recollects how she used to play with it by making it dance as she beat time with her hands and as her bangles tinkled on her wrists.[52] To denote the beating of time by the heroine the poet uses the word *tālaiḥ* in plural and Ānandavardhana points out that the plural suffix has a suggestive import. The suffix denotes a wide variety of beating time and suggests the heroine's vast knowledge and great skill in music and dance. The recollection of her artistic talents fans the flame of the hero's yearning for re-union with her and this in turn enhances the suggestion of the *vipralaṁbha* or love in separation.[53]

In the *Śākuntala*, while describing the surroundings of Kaṇva's hermitage the poet makes a reference to the stones that are used to extract oil from *iṅgudi* fruits, and in doing so he qualifies the stones with the adjective *prasnigdhāḥ* (extremely oily).[54] The prefix in the adjective, according to Ānandavardhana functions as an agent of suggestion. Elucidating the point, some critics have pointed out that the prefix suggests the excessive desire on the part of the hermits for the *iṅgudī* fruit. But Abhinavagupta takes exception to this on the ground that those are the words of a King and not a

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50 Kimiva hi madhurāṇām maṇḍanam nākṛtīnām. *Śākuntala*, Act. I Verse 17, quoted in *Dhv.* (p. 289) as an instance of *Atyantatiraskṛtavācyadhvani.*

51 Madhuraśabdena sarvaviṣayarañjakatvatarpakatvādikam lakṣayatā sātiśayābhilāṣaviṣayatvam natrāścaryamiti vaktrabhipretam dhvanyate. *Locana*, p. 291.

52 Tālaiḥ śiñjadvalayasubhagaiḥ kāntayā nartito me. *Meghadūta*, Part II, Verse 16, quoted in *Dhv.* p. 351.

53 Tālairiti bahuvacanamanekavidham vaidagdhyam dhvānat vipralambhoddīpakatām eti. *Locana*. p. 351.

54 Prasnigdhāḥ kvacidiṅgudīphalabhidaḥ sūcyanta evopalāh. *Śākuntala*, Act I, Verse 13, quoted in *Dhv.* p. 353.

These words are addressed to Manmatha or the god of love by Indra who persuades him to lure Śiva from his penance and make him fall in love with Pārvatī. In persuading him to undertake this enterprise for the sake of gods, Indra with tremendous tact praises his valour to the skies and expresses confidence and satisfaction in the invincible power of his dart of love. This stanza occurring at the conclusion of his persuasive speech, also ends with a glowing tribute to Manmatha's valour. The greatness of his valour is expressed in the words *asi spṛhaṇīyavīryaḥ* (thou art of an enviable prowess), but it is suggested hundred-fold by the particles *aho* and *bata*. They suggest the feelings of wonder, admiration and exultation[63] which in turn excite the sentiment of *vīra* or valour in the reader's mind.

8. *Subordinated Suggestion*

No doubt, Ānandavardhana recognises poetry which is pre-eminently suggestive in character (*dhvani*) as the most beautiful one and exhorts poets to conform to this standard in their compositions. But that does not mean that he insists that in every line and stanza in a poem, the suggested element should be more outstanding than what is expressed; on the other hand, he recognises a type of poetry called *guṇībhūta-vyaṅgya* in which the expressed sense or figure predominates and what is suggested plays a secondary role.[64] This technique of subordinating suggestion to expression, in the estimate of Ānandavardhana, has been resorted to as and when found appropriate by Kālidāsa also. Ānandavardhana also realises the fact that, sometimes it would be really difficult to distinguish between poetry with a predominant element of suggestion and that in which the suggestion has only a subordinate position. He gives a warning to the critics that they should not, in their enthusiasm for attributing prominence to suggestion in poetry, commit the error of interpreting the latter as the former. In fact he advises the critics that wherever reasons warrant they should adjudge a poem as of subordinated suggestion without mistaking it for one that is primarily suggestive.[65] To illustrate the view he cites the following from the *Kumārasaṁbhava*:

"The maiden who is decorating Pārvatī on the occasion of her marriage, having dyed her feet, wishes her in a jocular mood: 'With this foot touch the crescent moon on

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63 Ślāghātiśayo . . . aho bateti . . . dhvanyate. *Locana*, p. 355.

64 Prakāro'nyo guṇībhūtavyaṅgyaḥ kāvyasya dṛśyate /
Yatra vyaṅgyānvaye vācyacārutvam syāt prakarṣavat //
Dhv. p. 458.

65 Prabhedasyāsya viṣayo yaśca yuktyā pratīyate /
Vidhātavyā sahṛdayairna tatra dhvaniyojanā //
Dhv. p. 480. See also a passage in the Vṛtti—na sarvatra dhvanirāgiṇā bhavitavyam. *Ibid.* p. 481.

thy lover's head.'[66] Without speaking a word in reply to this, Pārvatī beat her with a wreath."[67]

Elucidating the subordination of suggestion to expression in the stanza, Ānandavardhana says: "Through the protest contained in the expression 'beat her without speaking a word' (*nirvacanaṁ jaghāna*) the suggested sense has been partly expressed.[68] At such a sneering remark from the dressing maiden, a woman would normally flare up or protest in strong words, but Pārvatī, being a young woman, naturally becomes baffled and irresolute owing to shyness, dissimulation, joy, resentment, perturbation, self-respect and similar feelings. These feelings even though suggested, are only subservient to the baffled and irresolute state of Pārvatī's mind which is partly expressed by the word *nirvacanam* (without speaking a word). They are subservient in the sense that they are the cause of this particular state of her mind and they help us to realise its full significance.[69]

In order to make clear the subordinate character of suggestion in the stanza under discussion, Ānandavardhana compares it with the stanza *evam vādini devarṣau* etc.[70] occurring in the *Kumārasaṁbhava* itself. In that stanza, the bashfulness which is suggested is held to be more beautiful and hence more predominant than the expressed sense of counting the petals of the lotus flower, for there is no expressed clue with regard to the suggestion. On the other hand, in the present stanza, the word '*nirvacanam*' gives a definite clue[71] to comprehend the various feelings in Pārvatī, thereby shifting the importance to the expressed sense. Unless this is clearly understood, one is apt to appreciate the nature of suggestion in the stanza in a wrong manner. It is quite possible that one may assume the position that after understanding the expressed meaning of the words, the reader will naturally comprehend the feelings that are suggested. Hence there is a chance that the stanza may be taken as an instance of *anuraṇanadhvani* or poetry

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66 Abhinavagupta explains the implications of the wish as follows:— alaktakoparaktasya hi candramasaḥ parabhāga lābho anavaratapādapatanaprasādanairvinā na patyurjhaṭiti yatheṣṭānuvartinyā bhāvyamiti copadeśaḥ *Locana*. p. 481. Mallinātha gives a different interpretation.

67 Patyuḥ śiraścandrakalām anena
Spṛśeti sakhyā parihāsapūrvam /
Sā rañjayitvā caraṇau kṛtāśir-
Mālyena tām nirvacanam jaghāna //
Kumārasaṁbhava, Canto VII, Verse 19.

68 'Nirvacanam jaghāna' . . . iti pratiṣedhamukhena vyaṅgyasyārthasyoktyā kiñcidviṣayīkṛtatvād guṇībhāva eva śobhate. *Dhv.* p. 482.

69 Nirvacanamiti—anena lajjāvahitthaharṣerṣyāsādhvasasaubhāgyābhimānaprabhṛti yadyapi dhvanyate, tathāpi tannirvacanaśabdārthasya kumārijanocitasyāpratipattilakṣaṇasyārthasyopaskārakatām kevalamācarati. *Locana,* p. 481.

70 *Kumārasaṁbhava,* Canto VI, Verse 84.

71 This is similar to the use of words like *saleśam*, *sākūtam* etc. in suggestive stanzas. See *Dhv.* pp. 240 and 250.

with resonance-like suggestion or poetry in which the expressed sense and suggested sense are appreciated in a perceptible order of succession. Anticipating this possible error, Ānandavardhana warns the critics not to include the stanza in the category of *anuraṇanadhvani* without realising the subordinate position of the suggestion of feelings in it [72]

Viewing the above stanza from a different angle, Ānandavardhana is inclined to recognise it as an instance of *rasadhvani* or poetry in which a sentiment that is suggested predominates. According to him, even poetry with subordinate suggestion may at times be reckoned as one with principal suggestion when it is viewed from the point of view of feeling and sentiments.[73] In the present stanza, the context of the bridal decoration, the reference to her erotic dalliance with her husband and her baffled condition and the suggestion of feelings of bashfulness, joy and the like, together indicate the sentiment of *ayogavipralaṁbha* or pre-marital love.

9. *Adaptation of Stories*

Kālidāsa, as is well known, has drawn upon the epics, purāṇas and folklore for the basic material for his plots except in the case of the *Ṛtusaṁhāra* and the *Meghsandeśa.* As borne out by his observation in the *Dhvanyāloka*, it is clear that Ānandavardhana has made a comparative study of Kālidāsa's works with their original sources and has come to the conclusion that the poet effected necessary modifications in the original stories and wove into them incidents and situations of his own invention with a view to developing their sentimental charm. Every poetic composition worth the name, in the critic's view, should essentially suggest a sentiment, and a poet should take all care possible to see that the plot of his work is so built up as to ensure this. In the course of expounding the different techniques to be adopted for weaving out a plot in a manner suitable for the successful suggestion of a sentiment, it is laid down in the *kārikas* as follows:

"Introduction of original incidents appropriate to the sentiment in hand, after eschewing what is unsuitable in the original story (would ensure the suggestion of sentiment etc. in the poem)."[74]

A crude story selected by the poet from a well-known source may have the potentiality to be the basis of a composition brimming with emotional beauty, but it may not be suitable for ready adoption without some modifications. In such cases the poet should prune the story with a view to leaving out what is not congenial for the delineation of the sentiment. Further, he should expand the story by suitable incidents

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72 Tasmānnātrānuraṇanarūpavyaṅgyadhvanivyapadeśo vidheyaḥ. *Ibid.* p. 482.

73 Guṇībhūtavyaṅgyo'pi kāvyaprakāro rasabhāvāditātparyālocane punardhvanireva saṁpadyate; yathātraivānantarodāhṛte ślokadvaye. *Ibid.* p. 483.

74 Itivṛttavaśāyātām tyaktvānanuguṇām sthitim /
Utprekṣyāpyantarābhīṣṭarasocitakathonnayaḥ // *Dhv.* p. 329.

which are the creation of his own poetic imagination. Having set forth this view Ānandavardhana mentions Kālidāsa's works as model in this respect.[75]

As pointed out by Ānandavardhana, Kālidāsa has suitably modified the current stories which he adopted in his works by avoiding incidents and situation which do not lend themselves to carrying the sentiments to lofty levels and by introducing incidents and situations created by his fertile imagination, so as to ensure opportunities for heightening the emotional appeal of his works. A comprehensive study of this aspect of Kālidāsa's works fully appreciated and specifically referred to by Ānandavardhana, is not proposed to be undertaken here, but a reference may be made to the artistic skill the poet has shown in adapting the original story of *Śākuntala* in the *Mahābhārata* which has very little of dramatic appeal and sentimental charm. "As one reads the original story, one hardly thinks it is capable of supplying the greatest of Sanskrit dramatists with the necessary plot for the most renowned of his works. Yet the fact is there, that into this dry unromantic skeleton Kālidāsa has breathed the life of romanticism and animation."[76] It is not intended to examine here in detail all the changes introduced by Kālidāsa in the original story. The aim is only to elucidate the views of Ānandavardhana in this regard, giving one illustration each for the modification effected by the poet and for his original contribution to the plot.

The story in the original *Śakuntalopākhyāna* in the *Mahābhārata* up to the Gāndharva marriage of Śakuntalā and Duṣyanta may be summarised here for comparison with its counterpart in the *Śākuntala*. The king sets out on a hunting expedition accompanied by the ministers, the family priest, and all the divisions of the army. His loyal subjects accompany him for a long distance till they are persuaded to return and the ladies looking at him from the storied buildings praise him and shower flowers on him out of loyalty and admiration.[77] The King crosses three wild forests while hunting and comes to the fourth, in which is situated the hermitage of Kaṇva on the bank of the river Mālinī. Having stationed the army on the borders of the forest, he enters it accompanied by his ministers and the family priest.[78] On entering the sacred precincts of the hermitage, Duṣyanta's hunger and thirst disappear and he feels an unusual exhilaration. Progressing further, the king asks his companions

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75 Itivṛttavaśāyātām kathañcidrasānanuguṇām sthitim tyaktvā punarutprekṣyāpyantarābhīṣṭarasocitakathonnayo vidheyaḥ; yathā Kālidāsaprabandheṣu. *Ibid*. p. 335.

76 See introduction to the *Abhijñānaśākuntala* edited by A. B. GAJENDRAGADKAR, p. XIX. Fifth Edition. 1951.

77 Prāsādavaraśṛṅgasthāḥ parayā nṛpaśobhayā. | Dadṛśustam striyastatra śūramātmayaśaskaram, | . . . Tuṣṭuvuḥ puṣpavṛṣṭīśca sasṛjustasya mūrdhani // Mahābhārata (critical Edition), *Ādiparvan*, Adhyāya 63, Verses 5 and 8.

78 Sāmātyo rājaliṅgāni so'panīya narādhipaḥ / Purohitasahāyaśca jagāmāśramamuttamam // *Ibid*., Adhyāya 64, Verse 29.

to stay back and advances alone to the hermitage proper, to pay homage to the great sage.[79] Failing to meet Kaṇva in the hermitage and finding none there the king shouts loudly to announce his arrival. On hearing the shouting, Śakuntalā who is in charge of the hermitage comes out to receive the guest.[80] She offers a modest welcome and offering a seat she greets him in the proper manner. She asks him who he is and the purpose of his visit to the hermitage.[81] Then Duṣyanta divulges his name, royalty and parentage,[82] and makes enquiries about Kaṇva. Śakuntalā replies that her father has gone out to gather fruits and will return soon and if the king will wait a little, he can meet him.[83] At the instance of the king Śakuntalā narrates her own story in detail as she heard it narrated by Kaṇva to another sage. From her own words, Duṣyanta comes to know beyond doubt that she belongs to Kṣatriya caste and persuades her to marry him according to *Gāndharva* form of marriage, enticing her by offering all kinds of ornaments, riches and even the entire wealth of his State. The king follows up this request with a homily on the excellence of the *Gāndharva* marriage.[84] Finding her insistent on consulting her father in the matter, he preaches the philosophy of self-reliance and self-determination, concluding with the advice that according to *dharma* or the canons of righteous life, she should marry a person of her choice.[85] Once the king assures her that love marriage is quite consistent with the principles of ideal life and that she is her own mistress in the matter of marriage, she bargains that he should agree to give the throne to his son by her as a condition precedent to her marrying

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79 Tato gacchanmahābāhureko'mātyān visṛjya tān. *Ibid.*,
Adhyāya 65, Verse 1.

80 So'paśyamānastamṛṣim śūnyam dṛṣṭvā tamāśramam /
Uvāca ka ihetyuccairvanam sannādayanniva //
Śrutvātha tsya tam śabdam kanyā śrīriva rūpiṇī /
Niścakrāmāśramāttasmāttāpasīveṣadhāriṇī //
Ibid., Adhyāya 65, Verse 2-3.

81 Yathāvadarcayitvā sā pṛṣṭvā cānāmayam tadā /
Uvāca smayamāneva kim kāryam kriyatāmiti //
Ibid., Adhyāya 65, Verse 6.

82 Rājarṣestasya putro'hamilileasya mahātmanaḥ /
Duṣyanta iti me nāma satyam puṣkaralocane //
Ibid. Adhyāya 65, Verse 9.

83 Gataḥ pitā me bhagavān phalānyāhartumāśramāt /
Muhūrtam sampratīkṣasva paśyasyenamihāgatam. //
Ibid. Adhyāya 65, Verse 9.

84 Suvarṇamālā vāsāmsi kuṇḍale parihāṭake /
Nānāpattanaje śubhramaṇiratne ca śobhane //
Āharāmi tavādyāham niṣkādīnyajināni ca /
Sarvam rājyam tavādyāstu bhāryā me bhava śobhane //
Gāndharveṇa ca mām bhīru vivāhenaihi sundarī /
Vivāhanam hi rambhoru gāndharvaḥ śreṣṭha ucyate //
Ibid. Adhyāya 66, Verses 2-4.

85 Ātmano bandhurātmaiva gatirātmaiva cātmanaḥ /
Ātmanaivātmano dānam kartumarhasi dharmataḥ //
Ibid. Adhyāya 67, Verse 7.

him. To this he readily accedes.[86] Further as insisted on by Śākuntalā, the king enjoins on the priest to conduct the marriage ceremony and at the end of the ceremony he takes her hand and embraces her.[87] Then she prostrates before him and he consoles her with assurance of future protection and prosperity. After giving a definite undertaking to her that he would take her to his royal residence in a short time, Duṣyanta leaves the hermitage.

The original story of *Śākuntala* as summarised above is only a drop in the ocean of the *Mahābhārata* and the author has narrated it in the usual epic manner of recording past events, keeping the story interest in view but without much literary flourish or artistic beauty. However, Kālidāsa with his keen artistic sense found in it a potential theme which, when made to undergo the necessary metamorphosis, would become ideal for a drama. So choosing *śṛṅgāra* or love as the prominent sentiment for his immortal drama, the poet naturally weeded out fom the original story what was uncongenial to the suggestion of love-sentiment and dramatic representation and introduced new features suitable to both. Taking full liberty in the matter the poet considerably modified the original story and moulded a golden image out of clay.

Kālidāsa first of all applied his axe to the long description of the king's hunting expedition, as he found that it was not in any way helpful to the love motif in his drama. The poet must have felt that it was awkward to allow the love episode to take place inside the hermitage while Kaṇva had just gone out to gather fruits and the ministers and the priest were waiting outside the hermitage and the army was waiting at the entrance of the grove. In order to avoid this awkward situation which hampers the sentiment of love, the poet made Kaṇva stay away on his pilgrimage for a long time and the ministers and priest not to accompany the king to the forest. He made Duṣyanta stray away from the army that accompanied him and to arrive at the hermitage all alone.

In the drama, Duṣyanta sees Śakuntalā for the first time in a set-up entirely different from that in the *Mahābhārata*, and very conducive to the generation and development of love in him. As he arrives near the hermitage, lured by the deer, he gets information that Kaṇva has gone to *Somatīrtha* entrusting to Śakuntalā the duty of receiving the guests. Then he decides to meet her, anticipating that she may convey his great respect and devotion to the sage on his return from the pilgrimage. Then he enters the precincts

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86 "Mama jāyeya yaḥ putraḥ sa bhavettvadanantaram /
Yuvarājo mahāraja satyametadbravīhi me //
Yadyetadevam duṣyanta astu me saṅgamastvayā" /
Evamastviti tām rājā pratyuvācāvicārayan //
Ibid. Adhyāya 67, Verses 16-17.

87 Vaivāhikīm kriyām santaḥ praśamsanti prajāhitām /
Lokapravādaśāntyartham vivāham vidhinā kuru //
Ibid. Adhyaya 94, Verse 26. (Nirnayasagara Edition) Jagrāha vidhivat pāṇāvuvāsa ca tayā saha / *Ibid.*, Adhyāya 67, Verse 19.

of the hermitage in all modesty and happens to see Śakuntalā at a distance coming in his direction along with her two companions. Anasūyā and Priyaṁvadā, to water the young trees of the grove. On closer observation, he becomes greatly impressed by their personal charm and fancies that those forest maidens surpass even royal consorts in beauty, like the wild creepers outshining those carefully reared in a garden.[88] Remaining in a shade, he closely follows the conversation of the maidens, which helps him to spot out Śakuntalā, in the group. He unconsciously begins to take an interest in her and feels sympathetically that a maiden of her tenderness and charm ought not to undergo penance, and he characterises the action of Kaṇva as an attempt to cut the *śami* tree with the edge of a lotus leaf. [89] He gets more and more absorbed in her youthful charm and gradually drifts into the pleasant thought of possessing her as his wife. From Śakuntalā's conversation with her companions he more or less infers that she would be given away in marriage,[90] but he gets considerably agitated due to his doubt whether she is a Brahmin or a Kṣatriya by caste. Because of his confidence in the righteous course of his mind he persuades himself to believe that a Kṣatriya like him could marry her.[91] But he wants to ascertain the truth about her. Inspite of this uncertainty, his love for her gains more and more ground. He dramatically appears before her when he finds that she is troubled by a bee flitting about her face, and when her companions advise her, to call Duṣyanta for help against the ill-behaved bee. What a great contrast between this scene and its parallel in the original story!

In Duṣyanta's presence Śakuntalā is completely baffled and remains silent even though he enquires of her regarding *tapas* in the hermitage. Anasūyā suggests a ceremonial reception to the king but he declines it, lest Śakuntalā should leave the place to fetch the necessary articles from the hermitage. Then Priyaṁvadā invites him to rest a while on a dais built in the cool shade of the Saptaparṇa tree. Duṣyanta suggests that they may also take some rest, as they have been fatigued by watering the plants and trees. All of them take their seats and there ensues a very pleasant conversation.

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88 (Nipuṇam nirūpya) aho! madhuramāsām darśanam.
Śuddhāntadurlabhamidam vapurāśramavāsino yadi janasya/
Dūrīkṛtā khalu guṇairudyānalatā vanalatābhiḥ.//
Śākuntala, Act I, Verse 16.

89 Idam kilāvyājamanoharam vapus-
Tapakṣamam sādhayitum ya icchati./
Dhruvam sa nīlotpalapatradhārayā
Śamīlatām chettuṁ ṛṣirvyavasyati. // *Ibid.* Act. I Verse 17.

90 Priyamvadā refers to Śakuntalā's desire to get married in the following words:
Yathā vanajyotsnānurūpeṇa pādapena saṅgatā api nāmaivamahamapyātmano anurūpam varam labheyeti. *Ibid.,* p. 28 Kale's edition (1961)

91 Asaṁśayaṁ kṣtraparigrahakṣamā
Yadāryam asyāmabhilāṣi me manaḥ /
Satām hi sandehapadeṣu vastuṣu
Pramāṇamantaḥkaraṇapravṛttayaḥ. //
Ibid., Act. I, Verse 20.

Śakuntalā contributes little to the conversation. She remains silent, all absorbed in her rapidly growing love for Duṣyanta and anxious to know who he is. Anasūyā makes respectful enquiries about the king, and in his desire to remain incognito he tells them that he has come to the forest to make sure that the religious rites are performed without any obstacles, as he has been put in charge of *dharma* or righteous life by the king. At the request of the king, Anasūyā briefly narrates the story of Śakuntalā's birth, suggesting the romantic character of the love episode of her mother Menakā and viśvāmitra and leaving much to the king himself to infer. Here one would feel that love and cordiality permeate the whole atmosphere and the scene easily outshines its counterpart in the original wherein Śakuntalā receives the king, talks to him like an unsophisticated forest girl and narrates the story how her mother entrapped Viśvāmitra by displaying herself before him at the instance of Indra and how she was born to them both. She shows no trace of hesitation or bashfulness expected of a dignified young woman.

Now that Duṣyanta has come to know that Śakuntalā is really the daughter of Menakā and Viśvāmitra, the hope of getting her in marriage becomes stronger. He has also heard Priyaṁvadā mentioning in jest Śakuntalā's desire to get a suitable husband but he is not yet sure of Kaṇva's intention which really counts in the matter. So, he asks her companions whether Śakuntalā is to observe the vow of an ascetic till she is given away in marriage or she is to live with the deer in the hermitage for ever.[92] To this he gets the most gratifying reply from Priyaṁvadā that Kaṇva has resolved to give her in marriage to a suitable husband. On hearing her companion speak like this, Śakuntalā pretends to be angry and holds out a threat that she will quit the place immediately. But her companions prevail upon her to remain with them and the pleasant conversation continues to foster love in Śakuntalā and Duṣyanta. By the time the scene comes to a close their love advances beyond all limits and both become conscious of reciprocity. The king describes her reactions as follows:

"Though she does not mingle her words with my speech, she attends closely when I speak; though she does not remain face to face with me, her eyes are not fastened on anything else."[93]

The report of an excited wild elephant entering the hermitage causes great agitation in Śakuntalā and she leaves the scene. In spite of her agitation she turns back for a moment and takes a parting look at her lover under the guise of extricating her garment from the twigs.

92 Vaikhānsam kimanayā vratamāpradānād
Vyāpārarodhi madanasya niṣevitavyam /
Atyantamātmasadṛśekṣaṇavallabhābhir
Āho nivatsyati samam hariṇāṅganābhiḥ. // *Ibid.*, Act. I, Verse 24.

93 Vācam na miśrayati yadyapi madvacobhiḥ
Karṇam dadātyabhimukham mayi bhāṣamāṇe /
Kāmam na tiṣṭhati madānanasammukhīnā
Bhūyiṣṭhamanyaviṣayā na tu dṛṣṭirasyāḥ //
Ibid. Act. I, Verse 28.

In his separation after the first meeting with Śakuntalā, Duṣyanta pines like anything. He forgets everything else and thinks about Śakuntalā alone. Eventhough his love has not yet become fruitful, he derives consolation and delight due to his confidence that Śakuntalā reciprocates his love. He recollects her loving glances and graceful steps. She was reluctant to leave him though she threatened to do so, taking objection to her companion's words. He even decides not to hunt the deer for the simple reason that their glances resemble those of his beloved. Taking his companion Māḍhavya into his confidence, Duṣyanta divulges his love for Śakuntalā and describes to him her beauty:

"Brahma first of all painted an ideal woman and then infused life into that picture or created her mentally using everything that is beautiful under the sun. The capacity of Brahma is too limited for creating such a jewel of womankind, and hence she must have been created by one who is different from him."[94]

Moreover, he compares her to a flower whose perfume nobody has smelt, a tender sprout unpricked by the nails, a jewel which has never been perforated and fresh honey which has been tasted by none, and he sums up the picture declaring her to be the reward of all good deeds in life. He also recollects how, she cast a tender parting glance at him.

At the request of the inmates of the hermitage, Duṣyanta stays there for a few days to ward off all obstacles to religious rites, in the absence of Kaṇva. During these days, his agony of separation reaches its zenith and one after-noon, being free from duties, he strolls in the penance-grove, with a heavy heart. He has still some misgivings regarding the culmination of his love episode, yet he finds it impossible to wean his heart from Śakuntalā. In this state of separation from his beloved, Cupid's flowery dart appears to him as hard as *vajra* (adamant) and the cool rays of the moon appear as emitting fire.[95] Finding no other means of relief, he goes to the banks of the Mālinī, where he expects to see her in the company of her friends as the day was sultry. Enjoying the moist breeze coming from the river and cooling his love-heated body to some extent, he reaches a bower of creepers. From the foot-prints seen outside the bower he infers that, Śakuntalā is inside the bower. The inference proves correct. On looking into the bower secretly he enjoys the feast of his eyes, to see her there reclining on a stone-slab covered with flowers and engaged in conversation with her companions.

In his anxiety to follow the sweet conversation of his beloved, Duṣyanta hides himself behind the branches of trees and remains there, in rapt attention. Śakuntalā's love-

94 Citre niveśya parikalpitasaukumāryā
Rūpoccayena manasā vidhinā kṛtā nu. /
Strīratnasṛṣṭiraparā pratibhāti sā me
Dhāturvibhutvamanucintya vapuśca tasyāḥ. // *Ibid.* Act. 11, Verse, 9.

95 Tava kusumaśaratvam śītaraśmitvamindor
Dvayamidamayathārtham dṛśyate madvidheṣu /
Visṛjati himagarbhairagnimindurmayūkhais
Tvamapi kusumabāṇān vajrasārīkaroṣi. //
Ibid. Act. III, Verse 3.

sickness has advanced far and the ordinary devices of cooling tried by her friends turn to be ineffective. Priyaṁvadā and Anasūyā have already begun to suspect the real cause of Śakuntalā's indisposition and in the course of their conversation, they succeed in making her confess her love for Duṣyanta.[96] To this, the lover reacts saying: *Śrutaṁ śrotavyam* (I have heard what is to be heard). Without wasting a moment the companions decide to help Śakuntalā in the fulfilment of her desire and advise her to write a letter of love to her lover which Priyaṁvadā undertakes to deliver promptly, concealed in flower offerings. Śakuntalā writes the following words on a lotus-leaf, by incision with her nails:

"I do not know your mind, O ! ruthless one, but day and night, Love exceedingly inflames my limbs. My desires are centered in you."[97]

On hearing this message of love, as Śakuntalā reads it out to her companions, Duṣyanta, no more capable of keeping away from his beloved, hastily approaches her causing her and her companions a pleasant surprise. He tells her that while love torments her, it simply burns him incessently, and on invitation by Anasūyā he sits down on Śakuntalā's bed. Anasūyā indirectly shows her consent agreeing to their marriage, by making a special request to the king, to give a worthy treatment to their dear friend in his court so that her kinsmen may not have to bewail her.[98] The king readily gives her the assurance that notwithstanding the fact that he has many other wives, the sea-girt earth and their friend will be the only two sources of glory to his race[99] thereby implying that his son by Śakuntalā will succeed him. What a world of difference with the original where just before the marriage Śakuntalā wrests a promise from the king that he will give the kingdom to their son!

The assurance given by the king, makes Priyaṁvadā and Anasūyā feel happy and both leave the lovers to themselves, under the pretext of taking a young deer to its mother. Left alone in Śakuntalā's company, the king lovingly offers to do personal services to her in the place of her companions[100] and tries to dispel her shyness which obstructs the fulfilment of his desire. Quite in contrast with the original story this love scene does not show Duṣyanta lecturing on the merits of love marriage or preaching the importance of selecting one's own partner in life. When she points out her de-

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96 Yataḥ prabhṛti mama darśanapathamāgataḥ sa tapovanarakṣitā rājarṣiḥ, tata ārabhya tadgatenābhilāṣeṇaitadavasthāsmi samvṛttā. *Ibid.*, page 98. Kale's Edition.

97 Tava na jāne hṛdayam mama punaḥ kāmo divāpi rātrimapi /
Nirghṛṇa tapati balīyastvayi vṛttamanorathāyā aṅgāni //
Ibid. Act. III, Verse, 15.

98 Yathā nau priyasakhī bandhujanaśocanīyā na bhavati tathā nirvartaya. *Ibid.*, page 110.

99 Parigrahababahutve'pi dve pratiṣṭhe kulasya me /
Samudraraśanā corvī sakhī ca yuvayoriyam. // *Ibid.*, Act. III, Verse 18.

100 Kim śītalaiḥ klamavinodibhirārdravātān
Sañcārayāmi nalinīdalatālavṛntaiḥ /
Aṅke nidhāya karabhoru yathāsukham te
Samvāhayāmi caraṇāvuta padmatāmrau. // *Ibid.*, Act. III, Verse 19.

pendence on her father in the matter of marriage, he only tries to hearten her by pointing out the fact that many daughters of Rājarṣis like herself got married according to the *gāndharva* fashion and were ultimately blessed by their parents, Śakuntalā yields to him and does not insist on having the marriage solemnised by a *purohita* as is the case of the original.

A comparison of the two accounts of the love episode given above, will reveal that, Kālidāsa subjects the story to various modifications, calculated to enhance the aesthetic beauty of the love motif in his drama. Among such modifications, attention may be drawn to a few, that are outstanding. The simple and outspoken forest-bred maiden quite typical of the epic age, does not appeal to the poet as a suitable heroine, for delineating love in all its elegance, and he artistically transforms her into a dignified and romantic damsel susceptible to the influences of love and capable of sweet reactions to its impact. Judging correctly that the hermitage will not afford the proper atmosphere for the love intrigues, he has shifted the scene to the grove which with its natural beauty affords effective excitements of love. By introducing the two new characters Priyaṁvadā and Anasūyā, Kālidāsa redeems Śakuntalā from certain functions that appeared to him inappropriately assigned to her, and he creates an atmosphere of sincere friendship and sweet sympathy in which love grows freely and steadily. While in the original, the whole love episode is compressed into the limited time during which Kaṇva goes out for collecting some fruits, Kālidāsa allows the couple ample time to cultivate friendship and develop their love, stage by stage[101] culminating in the *gāndharva* marriage.

10. *Original element in the Plot*

The story of the signet-ring is an original contribution of Kālidāsa to the plot in the *Śakuntalā*. At the first meeting with Duṣyanta, Śakuntalā feels shy when Priyaṁvadā tells him that Kaṇva intends to give Śakuntalā in marriage to a suitable husband. She threatens, as it were, to leave the place immediately to lodge a complaint with the venerable Gautamī. Priyaṁvadā detains her with the authority of a creditor for she has obliged Śakuntalā by watering the trees for her. At that time, Duṣyanta, pretending to take pity on Śakuntalā who is already exhausted comes forward to redeem her from her obligation by offering his ring to Priyaṁvadā. Both the friends happen to read the name engraved on the ring and they look at each other in surprise on recognising that Śakuntalā's lover is none other than the king himself. Duṣyanta then tries to hoodwink them saying that he is a representative of the king and the ring is only a royal gift. Priyaṁvadā announces Śakuntalā's release but declines to receive the ring, making the pleasing remark that it is not proper to separate

101 Dṛṅmanassaṅgasaṅkalpajāgarāḥ kṛśatā ratiḥ /
Hrītyāgonmādamūrcchānta ityanaṅgadaśā daśa //
Almost all these stages of love are vividly described by Kālidāsa.

it from the finger it adorns.[102] At the time of his departure from the hermitage, Duṣyanta slips it on Śakuntalā's finger as a memento.

The ring assumes great significance after the curse inflicted by the irate Durvāsas on the innocent Śakuntalā. On his arrival at the hermitage, Durvāsas is not received properly by her as she remains all absorbed in her love for Duṣyanta. The sage takes this as a great affront and utters the curse that the person in whom she is so engrossed as to disregard the presence of the sage, shall not remember her even if reminded.[103] Moved by the touching supplications of Priyaṁvadā, the sage relents and declares that his curse will cease as soon as the king is shown a memento.[104] From that moment onwards the ring becomes the sole source of consolation for the two good friends of Śakuntalā regarding her future, but they do not disclose the unfortunate incident to her, as they fear that she may not stand the shock. On his return from his pilgrimage Kaṇva learns everything about Śakuntalā's marriage and he embraces her and blesses the marriage with all good wishes. Further, he makes arrangements to send her to her husband. Before her departure, her companions embrace her and instruct her that in case the king fails to recognise her readily, she may show him the ring he has presented to her.[105] Śakuntalā arrives at the court, but the king, under the influence of the curse fails to recognise her. She remembers her friend's advice and feels her finger for the ring only to see to her great disappointment, that it is not there. When Śakuntalā is totally rejected by Duṣyanta, her mother Menakā descends from heaven and carries her away to the hermitage of the sage Mārīca in the Hemakūṭa mountain where she is well taken care of. Meanwhile, the police comes in possession of the ring from a fisherman. He found it inside the body of a fish which he caught at the Śakratīrtha. When Śakuntalā crossed the place, the ring had slipped from her finger, unnoticed by her. The ring is soon taken to the king and on seeing it he is freed from the spell of the curse and remembers everything about Śakuntalā and the love-marriage. The dramatic situation created by the poet, gives him an opportunity to describe *vipralaṁbha* in the sixth act of the play.[106]

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102 Tena hi nārhatyaṅgulīyakamaṅgulerviyogam. *Śākuntala*, KALE's Edition, p. 48.

103 Vicintayantī yamananyamānasā
Tapodhanam vetsi na māmupasthitam /
Smariṣyati tvām na sa bodhito'pi san
Kathām pramattaḥ prathamām kṛtāmiva //
Ibid., Act. IV, Verse 1.

104 Abhijñanābharaṇadarśanena śāpo nivartiṣyate. *Ibid.*, p. 126.

105 Sakhi, yadi nāma sa rāja pratyabhijñanamantharo bhavet tatastasyedamātmanāmadheyāṅkitamaṅgulīyakam darśaya. *Ibid.*, p. 154.

106 As instances of original incidents suitable for the main *rasa* in Kālidāsa's works, Abhinavagupta points out Indumatīsvayamvara etc. in the *Raghuvaṁśa*. See *Locana*, p. 335.

11. *Variety in Description*

In the *Dhvanyāloka*, one comes across illustrations with appropriate comments which clearly indicate that Ānandavardhana is an ardent admirer of Kālidāsa's descriptive powers. The descriptions of Pārvatī, Śakuntalā and other characters and those of the mountains, rivers, creepers etc. mentioned in different contexts in the work evidently show that he was struck by the wide variety of objects described by the poet. Ānandavardhana himself mentions with appreciation, how the poet brings about variety in different descriptions of the same person or object. To illustrate this variety, he refers to the description of Pārvatī in *Kumārasaṁbhava* in three different stages, first, as a damsel of unrivalled beauty, second, as a Cupid's missile decked in floral ornaments and third, as a bride being dressed for her marriage.[107]

In the first canto of the *Kumārasaṁbhava*, there is a colourful description of Pārvatī in the full bloom of her youth. The profuse employment of beautiful images in the course of the description, impresses one with the amazing powers of the language of imagery at the command of the poet. Beginning with her perfect eyes which shed the radiance of lotus flowers, the poet describes every member of her graceful body straight up to her tresses which put to shame the yak which is proud of its hairy tail. She moves like a swan, with the additional attraction of the music of her anklet. Her thighs though similar in shape to the elephant's trunk and to the plantain tree, excel them both, by being soft and warm. The skin-fold above her navel appears like a flight of steps provided by her youth for the onward march of the god of love. Her lovely breasts are so close that even a lotus fibre cannot penetrate the space between them and her hand is more attractive than a garland of *śirīṣa* flowers. In her face are combined the beauty of the lotus and that of the moon. The smile on her lips may be compared to a white flower if it ever blossoms on a red tendril or to "a fair pearl set in richest coral". When she speaks the sweet note of the koil seems "harsh and tuneless as a jarring chord". Her glance tremulous like a lotus fluttering in the breeze, is comparable to that of a gentle fawn. So goes the description which the poet concludes with the words:

"She was created with great effort by the Maker of the Universe by bringing together everything that is lovely in Nature and setting them in their proper places, as if with a desire to see all beauty centered in a single person".[108]

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107 Bhagavatī Pārvatī Kumārasambhave 'sarvopamādravyasamuccayena' ityādibhiruktibhiḥ prathamameva parisamāpitarūpavarṇanāpi punarbhagavataḥ śambhorlocanagocaramāyāntī 'vasantapuṣpābharaṇam vahantī' manmathopakaraṇabhūtena bhaṅgyantareṇopavarṇitā. Saiva ca punarnavodvāhasamaye prasādhyamānā 'tām prāṅmukhīm tatra niveśya tanvīm' ityādyuktibhirnavenaiva prakāreṇa nirūpitarūpasauṣṭhavā. *Dhv.* p. 539.

108 Sarvopamādravyasamuccayena
Yathāpradeśam viniveśitena /
Sā nirmitā viśvasṛjā prayatnād
Ekasthasaundaryadidṛkṣayeva //
Kumārasaṁbhava, Canto I, Verse 49.

Even as Brahma created Pārvatī with all the objects of beauty, Kālidāsa describes her physical form lavishing his stock of imagery and giving full play to his imagination.

In the third canto of the poem the poet describes Pārvatī as an instrument of Manmatha for the subjugation of Śiva.[109] Intent on over-powering the Lord who is immersed in meditation, the god of love comes near him, but his courage fails and in woe and fear he drops his bow and arrows. As he finds himself helpless to carry out the mission which Indra has entrusted to him, there appears on the scene Pārvatī accompanied by two sylvan deities. She comes dressed in purple garments and decorated with vernal flowers, and in her youthful charm she looks like a creeper over-laden with sweet flowers. Her hand replaces the flowery girdle that frequently slips from her waist. With the aid of the toy-lotus in her hand she wards off the bee that hovers round her lip. As this sweet vision comes to his view, Manmatha gains hope and courage and he feels confident of conquering Śiva who hitherto seemed to be invincible. This description presents Pārvatī in the role of cupid's missile and gives the impression of beauty in action.

The description of Pārvatī as she is being decorated for her marriage is also remarkable for its variety.[110] The bride dressed in white garments after her bath shines forth like the earth with fully blossomed *kāśa* flowers after the rains. The maids make her sit on a seat facing the east and begin to attend to her toilet. Being arrested by her natural beauty, they pause for a moment before they begin their work. They dry her hair with incense-fume and adorn it with a garland of white *madhūka* flowers interlined with *dūrva* grass. They also apply the paste of fragrant tree and the *gorocana* pigment on her. Pārvatī's face with dark curls on her forehead excels in beauty both the lotus flower with black bees on it and the full moon shining with streaks of dark clouds over it. Her thin lips with their red hue enhanced by the application of bees' wax, bear a quivering brightness all their own. Her eyes as beautiful as the lotus-leaves require no adornment, yet the maids apply the black pigment for the sake of auspiciousness. With the decorations Pārvatī's charm grows like that of a creeper with its blossoms or like the charm of the night with stars. Her toilet over, Pārvatī looks eagerly in the mirror and yearns to meet Śiva to present all her charm to him. The poet says: 'Having looked at her beautiful image in the mirror, that lovely maiden felt the urge to meet Hara. The appreciation of her lover is indeed the reward of a woman's decoration.'[111]

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109 *Ibid.,* Canto III, Verses 51-56.

110 *Ibid.,* Canto VII, Verses 10-22.

111 Ātmānamālokya ca śobhamānam
Ādarśabimbe stimitāyatākṣī /
Haropayāne tvaritā babhūva
Strīṇām priyālokaphalo hi veṣaḥ //
Ibid., Canto VII, Verse 22.

In the three descriptions mentioned above, Kālidāsa presents Pārvatī as beauty incarnate. In the first, it is static beauty, in the second it is beauty in action, and in the third it is beauty yearning for fulfilment. Variety of imagery and poetic fancy breathe freshness into these descriptions.[112]

Ānandavardhana has appreciated another device employed by Kālidāsa to achieve novelty in his descriptions. Sanskrit poets describe natural phenomena like mountains, rivers and forests not only in their material form, but also crediting them with an appropriate sentient personality and attributing to them the behaviour of dignified human beings. Kālidāsa has also adopted this device in appropriate contexts with marked effect. As an outstanding instance Ānandavardhana cites the description of Himavān in the *Kumārasaṁbhava*, first in the form of a mountain and then, as the presiding spirit of the mountain.[113]

The physical appearance of Himavān in the material form, is described with all majestic beauty at the beginning of the *Kumārasaṁbhava*. While this prince among mountains, clad in snow, majestically extends like a measuring rod of the whole earth,[114] it surpasses the solar disc in height. The sun opens with its upward ray the lotus buds in the lakes on the summits left unplucked by the seven sages.[115] Himavān is really the prince among mountains being the custodian of precious herbs and sparkling gems. To justify his royalty, as it were, the wild kine display the royal emblem with their outspread tails, as white as the rays of the moon.[116] The lions leave with their foot-prints in the white snow, the pearls that cling to their claws as they prey upon the elephants. Those pearls indicate the path for the hunters to track the lions.[117] The elephants in rut in order to ease the irritation on their temples, rub them against the Sarala trees and the odour of the gum that oozes out of the bark spreads rendering

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112 The description of Pārvatī as she is practising penance has its own variety but Ānandavardhana does not mention it.

113 Ayamaparaścāvasthābhedaprakāro yadacetanānām sarveṣām cetanam dvitīyam rūpamabhimānitvaprasiddham himavadgaṅgādīnām. Taccocitacetanaviṣayasvarūpayojanayopanibadhyamānam anyadeva sampadyate. Yathā Kumārasaṁbhava eva parvatasvarūpasya himavato varṇanam, punaḥ saptarṣipriyoktiṣu cetanatatsvarūpāpekṣayā pradarśitam tadapūrvam eva pratibhāti. *Dhv.* p. 539.

114 Sthitaḥ pṛthivyā iva mānadaṇḍaḥ. *Kumārasaṁbhava* Canto I, Verse 1.

115 Padmāni yasyāgrasaroruhāṇi
Prabodhayatyūrdhvamukhairmayūkhaiḥ /
Ibid., Canto I, Verse 16.

116 Yasyārthayuktam girirājaśabdam Kurvanti bālavyajanaiścamaryaḥ /
Ibid., Canto I, Verse 13.

117 Vidanti mārgam nakharandhramuktair-
Muktāphalaiḥ kesariṇām kirātāḥ / *Ibid.*, Canto. I, Verse 6.

the table lands fragrant.[118] The barks of the Bhūrja trees afford writing material and the metal tint the ink, for the *Vidyādhara* ladies to write love-letters.[119] The luminous herbs, during the night, illumine the caves where the foresters enjoy themselves with their brides.[120] The clouds hanging at the entrance of the caves serve as screen, when, the nymphs are unexpectedly undressed by their lovers.[121] The mountain affords protection to darkness from sun during day time, in its large caves; for the great ones show kindness to the suppliant, however low he may be.[122] The hunters after their chase, enjoy the gentle breeze that comes from the Ganges, laden with water particles and waving the fragrant Devadāru trees.[123] As the glow of the minerals reflects itself in the clouds, there appears an untimely twilight, which impells the Apsara ladies, to deck themselves to meet their lovers.[124] The Aśvamukhis move about with grace and the Kinnaras sing. The Siddhas living in the table-land, resort to the peaks, when frightened by the rains, and the Seven Sages practise penance on the summits. In view of his unyielding might and the ritual herbs that grow on him, the Creator ordained him King.[125] The description is written in glorious language, and it impresses the reader with the majesty, beauty and sanctity of the great mountain.

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118 Kapolakaṇḍūḥ karibhirvinetum
Vighaṭṭitānāṁ saraladrumāṇām /
Yatra srutakṣīratayā prasūtaḥ
Sānūni gandhaḥ surabhīkaroti // *Ibid.*, Canto I, Verse 9.

119 Nyastākṣarā dhāturasena yatra
Bhūrjatvacaḥ kuñjarabinduśoṇāḥ /
Vrajanti vidyādharasundarīṇām
Anaṅgalekhakriyayopayogam // *Ibid.*, Canto I, Verse 7.

120 Bhavanti yatrauṣadhayo rajanyām
Atailapūrāḥ suratapradīpāḥ. *Ibid.*, Canto I, Verse 10.

121 Yatrāṁśukakṣepavilajjitānāṁ
Yadṛcchayā kimpuruṣāṅganānām /
Darīgṛhadvāravilambibimbās-
Tiraskariṇyo jaladā bhavanti //
Ibid., Canto I, Verse 14.

122 Divākarādrakṣati yo guhāsu
Līnam divābhītamivāndhakāram /
Kṣudre' pi nūnam śaraṇam prapanne
Mamatvam uccaiḥśirasām atīva //
Ibid., Canto I, Verse 12.

123 Bhāgīrathīnirjharaśīkarāṇām
Voḍhā muhuḥ kampitadevadāruḥ /
Yadvāyuranviṣṭamṛgaiḥ kirātair
Āsevyate bhinnaśikhaṇḍibarhaḥ //
Ibid., Canto I, Verse 15.

124 Yaścāpsarovibhramamaṇḍanānām
Sampādayitrīm śikharairbibharti/
Balāhakacchedavibhaktarāgām
Akālasandhyāmiva dhātumattām // *Ibid.*, Canto I, Verse 4.

125 Yajñāṅgayonitvamavekṣya tasya
Sāram dharitrīdharaṇakṣamam ca /
Prajāpatiḥ kalpitayajñabhāgam
Śailādhipatyam svayamanvatiṣṭhat // *Ibid.*, Canto I, Verse 17.

At the very commencement of the poem Kālidāsa characterises Himavān as possessing a divine personality (*Devatātmā*). This fits in with his role as a sentient being, as the husband of Menā and the father of Pārvatī.[126] Ānandavardhana draws our pointed attention to the description of Himavān at Oṣadhiprastha engaged in conversation with the Seven Sages about Pārvatī's marriage. Himavān has gone far out of his own residence to receive them with great respect. He is immensely tall. As he himself claims, his limbs reach the corners of the earth. With his gigantic form and unlimited strength he causes the earth to shake to her centre at his tread. He leads the Sages to the inner apartment, offers them seats, enters into conversation with them in great humility and reverence. This unexpected privilege of receiving the sages is compared by him to rains without clouds and fruits without flowers.[127] He tells them that he feels elevated as it were, from the earth to heaven or out of ignorance to enlightenment. Then he makes a reference to the purifying effect of their presence and says that his animate and inanimate selves are gratified by their sympathy and favour.

His inanimate self being pressed by their feet is blessed; and equally blessed is in his animate self having got the opportunity to wait on them.[128] Then he surrenders himself along with his wife and daughter, and offers to carry out their wishes.[129]

The Sages, greatly pleased with Himavān, compliment him that his mind is as lofty as his summit.[130] Paying further tributes to his greatness, they communicate Śiva's proposal to marry Pārvatī. Himavān ascertains his wife's views and agrees to the proposal with pleasure. Side by side with the picture of the majestic and sublime physical form of Himavān, this picture of his affable and noble animate self has a freshness because of its novelty and variety.

12. *Poetic Propriety and Genius*

Though Ānandavardhana considers Kālidāsa as an ideal poet, he is not a blind admirer. One of the valuable contributions made by Ānandavardhana to literary cri-

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126 Devatātmādhiṣṭhātā yasya saḥ. Etenāsya vakṣyamāṇamenāpariṇayapārvatījanakādicetanavyavahārayogyatvasiddhiḥ.
Mallinatha's comentary on the opening stanza in the *Kumārasaṁbhava*.
Later on, the poet makes Himavān himself to refer to his two different selves. Aṅgiras also refers to the same. See *Kumārasaṁbhava,* Canto VI, Verses 58 and 73.

127 Apameghodayam varṣamadṛṣṭakusumam phalam /
Atarkitopapannam vo darśanam pratibhāti me // *Ibid.,* Canto VI, Verse 54.

128 Jaṅgamam praiṣyabhāve vaḥ sthāvaram caraṇāṅkitam /
Vibhaktānugraham manye dvirūpamapi me vapuḥ //
Ibid., Canto VI, Verse 58.

129 Ete vayamamī dārāḥ kanyeyam kulajīvitam /
Brūta yenātra vaḥ kāryamanāsthā bāhyavastuṣu //
Ibid., Canto VI, Verse 63.

130 Manasaḥ śikharāṇām ca sadṛśī te samunnatiḥ.
Ibid., Canto VI, Verse 66.

ticism in Sanskrit is his doctrine of propriety in poetry. This doctrine holds that nothing obstructs the flow of sentiment in poetry as impropriety; observation of propriety is the secret of the art of suggesting sentiment.[131] According to this doctrine, propriety is to be strictly observed with regard to the abiding emotion (*sthāyibhāva*) of the story if the successful suggestion of sentiment is to be assured.[132] The general nature of this emotion and its manifestation vary according to the cultural levels of the characters, broadly classified into high (*uttama*), middling (*madhyama*) and low (*adhama*). The divine characters are included in the first category and their emotions and emotional responses are to be described in extremely good taste in keeping with their highly evolved personality. For example, it is not consistent with propriety to describe love in its vulgar form, in the case of divine characters.

The above principle of poetic propriety is violated by Kālidāsa in the *Kumārasaṁbhava* wherein he describes the amorous dalliance of Śiva and Pārvatī in a manner befitting only low characters.[133] Ānandavardhana criticises this adversely in his *Dhvanyāloka*.[134] Being a well-disciplined and seasoned critic and being temperamentally reluctant to decry great poets, he is moderate in his remarks on this literary flaw.[135] He points out that there is a mitigating factor here. The shortcomings in poetry are ordinarily due to the lack of either scholarship or genius on the part of the poet. In the latter case, the defects present themselves instantly to the readers, but in the former case the magic power of the poet's genius submerges the defects and fascinates the readers, keeping them unconscious of the defects.[136]

According to Ānandavardhana, this poetic blemish does not become patent in Kālidāsa as it is submerged by the artistic beauty of the description. Thus the adverse criticism raised by Ānandavardhana against Kālidāsa, paves the way for a glowing tribute to his extraordinary genius.[137]

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131 Anaucityādṛte nānyadrasabhaṅgasya kāraṇam /
Prasiddhaucityabandhastu rasasyopaniṣat parā // *Dhv* p. 330.

132 Vibhāvabhāvānubhāva— Sañcāryaucityacāruṇaḥ /
Vidhiḥ kathāśarīrasya vṛttasyotprekṣitasya vā //
Ibid., p. 329.

133 See *Kumārasambhava*, Canto VIII.

134 Mahākavīnāmapyuttamadevatāviṣayaprasiddhasambhogaśṛṅgāra nibandhanādyanaucityam śaktitiraskṛtatvād grāmyatvena na pratibhāsate. Yathā Kumārasambhave devīsambhogavarṇanam. *Dhv.*, p. 317. See p. 333 also.

135 Tattu sūktisahasradyotitātmanām mahātmanām doṣodghoṣaṇamātmana eva dūṣaṇam bhavati. *Ibid.*, p. 233.

136 Avyutpattikṛto doṣaḥ śaktyā samvriyate kaveḥ /
Yastvaśaktikṛtastasya sa jhaṭityevāvabhāsate // *Ibid.*, p. 316.

137 See also *supra* (p. 22) where Ānandavardhana charges Kālidāsa with overdoing in figures of speech, but justifies him at the same time on the ground that the overdoing has not affected the predominance of the sentiment in the verse.

13. *Conclusion*

Ānandavardhana is perhaps the foremost among Indian thinkers on aesthetics. His theory of poetry and standards of aesthetic criticism set forth in the *Dhvanyāloka*, his *magnum opus*, came to be accepted, with few exceptions, by all later rhetoricians in India. In fact in later times, he is recognised as the greatest authority in the field of Sanskrit poetics.[138] Leaving the subject matter of poetry to be chosen by poets, he emphasised the technique of suggestion and the importance of emotional appeal in poetry.[139] He laid down the principles to be observed by the poets in order to ensure this emotional appeal and evolved, side by side, the principles of poetic criticism enabling a critical reader to appreciate the artistic merits of poetry in general and suggestive poetry in particular.[140] On the basis of such pinciples, he assessed Kālidāsa in the course of his exposition of the theory of suggestion in poetry. This assessment, more or less, agrees in form and spirit with the trend of modern literary appreciation, in spite of the fact that more than eleven centuries have rolled by since he wrote his work. It reflects the mature judgement of a true critic and throws new light on Kālidāsa's poetry. This assessment is certainly of considerable significance for a correct and full appreciation of the great poet.

Ānandavardhana is at once a poet and a critic. He is conscious of the fact that being a poet himself with vast experience in the creative art, he judges poetry more authoritatively than his colleagues who are mere critics with a purely objective approach to poetry. He compares, with a certain amount of cynicism, his opponents who deny the existence of the suggested sense with those who, though acquainted with the science of music, are incapable of appreciating its subtleties, being devoid of personal experience in the art of singing.[141] Stressing the importance of composing suggestive poetry he says that he has demonstrated the art in his own works.[142] To illustrate certain aspects of suggestive poetry he cites in the *Dhvanyāloka* some of his own stanzas.[143] We may infer that in his efforts to propound his own theory of poetry by probing into its form and structure, he has drawn upon the evidence of his own experience as a poet.

Although his own creative experience as a poet stood him in good stead for formulating the theory of suggestion, Ānandavardhana was not oblivious of the great im-

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138 See—Dhvanikṛtām ālaṅkārikasamayavyavasthāpakatvāt. *Rasagaṅgādhara.*

139 Rasabhāvādi saṁbaddhā yadyaucityānusāriṇī /
Anvīyate vastugatiḥ kāladeśādibhedinī // *Dhv.*, p. 545.

140 Ityuktalakṣaṇo yo dhvanirvivecyaḥ prayatnataḥ sadbhiḥ /
Satkāvyam kartum vā jñātum vā samyagabhiyuktaiḥ //
Ibid., p. 516.

141 Atha ca vācyavācakamātrakṛtaśramāṇām Kāvyatattvārthabhāvanāvimukhātmanām svaraśrutyādilakṣaṇamivāpragītānām gāndharvalakṣaṇavidām agocara evāsāvarthaḥ. *Ibid.*, p. 94.

142 Asmābhirapi sveṣu kāvyaprabandheṣu yathāytham darśitameva. *Ibid.*, p. 499.

143 *Ibid.*, pp. 261, 388, 491 etc.

portance of the evidence afforded by other poets. He has reached his conclusions after measuring, comparing and evaluating much poetic material drawn from the literature of his time. To those who challenged his theory he has replied that a close scrutiny of the poems of great poets will convince them that the suggested sense is a source of literary delight to the reader.[144] He has invoked the authority of the two great epic poets known in those days and has cited illustrations from their works in support of his theory.[145] But among the poets he has quoted he has shown a great partiality for Kālidāsa. He has mastered the poet's works and he has dealt with him more elaborately than any other rhetorician in Sanskrit. He has drawn the largest number of quotations from Kālidāsa to illustrate the salient features of his theory. From his observations and remarks it would appear that Ānandavardhana held Kālidāsa in high esteem and agreed with his outlook on various aspects of poetic art. These facts naturally lead us to the conclusion, that in propounding his new poetic theory and in setting standards of aesthetic criticism, Ānandavardhana derived more inspiration from Kālidāsa than from any other poet.*

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144 Lakṣye tu parīkṣyamāṇe sa eva sahṛdayahṛdayāhlādakāri kāvyatattvam. *Ibid.*, pp. 106-7. See also passages like—sarvametacca mahākavīnām kāvyeṣu dṛśyate. *Ibid.*, p. 499.

145 Vālmīkivyāsamukhyāśca ye prakhyātāḥ kavīśvarāḥ/
Tadabhiprāyabāhyo' yam nāsmābhirdarśito nayaḥ. // *Ibid.*, p. 365.

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ON $\sqrt{}$*MAN* IN THE ṚGVEDA

by

B. R. SHARMA, *Tirupati*

In the Ṛgveda, the word *manu-* (or manus-) is used in the simple sense of a man. But in later Sanskrit the same term designates the famous law-giver *Manu-Prajāpati-* and the terms which are expressive of the meaning 'man' are *manuja-* or *mānava-* (or *manuṣya-* or *mānuṣa-*), — all derivatives of the Vedic *manu-* (or manus-) — literally meaning manu-born or descendant of Manu, the progenetor or father of present human race or Homo Sapiens.

The word *manu-*, it is clear, was derived from the root $\sqrt{}$*man-a* with the suffix *-u*. What is the meaning of this $\sqrt{}$man-a? In the *Dhātupāṭha* we come across two homophonous roots: (1) *man-a jñāne* in *divādi-* and (2) *man-u avabodhane* in *tanādi-*. If we agree that the word manu- was derived from either of these two roots, it must mean either one who can know or one who can understand (things) or at least think. This derivation, while acceding the exclusive monopoly of character of understanding or thinking to the human race would also, at the same time, give poor complement to that race's capability to assess things correctly and acurately. For, the faculty of understanding or thinking or of knowledge and wisdom is not a special or exclusive characteristic of human race alone. The animals, bipeds or quadrupeds, do think and understand things. There are certain bipeds and quadrupeds among animals which are known for their capacity of understanding and their intelligence. We have heard of many instances and happenings which aptly describe the intelligence and presence of mind exercised by animals such as horse, dog, elephant, etc. in the event of crisis and other occasions. Besides, all living beings do think and understand things to a certain extent at least. They do inherit certain knowledge and know things by instinct. The migrating birds and animals, for instance, exhibit surprisingly high degree of intelligence and thinking power and convince us that man, who is regarded superior to animals in thinking and intelligence, is not really so, even with all his modern inventions at his disposal. Therefore, the argument that man is so called because he is endowed with the faculty of thinking or the description that man is the intelligent and social animal holds no water. It only satisfies the plain vanity of these species which are, in fact, the vainest of all beings. For, no animal which has all normal sensuous development can be devoid of at least some sort of thinking power or instinct. Therefore, it is ruled out that the word *manu-* was derived from either of the roots mentioned above.

2. There are two great landmarks in normal development of a child — they are: 'beginning of walking and beginning of Speech'. These are two motor functions, which distinguished a human-being from other living beings. Among these two important functions, again, expression of thought through articulate sounds forming a language is the

special characteristic of a man alone, which he acquires, as a matter of fact, in his normal physical development since his childhood. Could we therefore, assume that the word *manu-* and its cognates in other languages semantically signify or disclose this special characteristic of a man which enabled him to excell himself from all his fellow beings?

3. There are two more cognate words in Indo-European languages which express the meaning 'man': one is, *homō* Latin, *guma* Gothic, *žumuo* old Lithuanian and the other is *mártya-* Sanskrit, *brótos* Greek, *mašya* Avesta. These two sets of expressions with parallels in many Indo-European languages, contrast man, the denizen of the earth, with gods, the denizens of heaven, and man mortal with gods immortal respectively. For, verily *homō* (Lat) or *guma* (Goth) or *žumuo* (Lith) — all meaning man —, are etymologically connected with the Primitive Indo-European *ghzem, Greek *chthon,* Sanskrit *Kṣmā-*, = the earth. Thus the terms *homō* and its cognates in other I.E. Languages philologically signify a being connected with the earth, i.e., a denizen of the earth. Similarly the second set of expressions for man, viz *mártya-* (Sanskrit) *brótos* (Greek) and *mašya-* (Avesta) — emphasize the mortal nature of a human-being. These two qualities of a man are thus contrasted with gods who reside in heaven (*divaukas-*) and who are immortal — (*amartya-*).

4. Similarly the words *manu-* in Sanskrit, *manna* in Gothic, *Mannus* (mentioned by Tacitus as the mythical ancestor of the West Germans), *mann* and *man* in German, *man* in Anglo-Saxon and man in English must have had some common origin as they are all identical in meaning. It does not appear to be correct to assume that the similarity of these words is just accidental. They are essentially cognate terms which have come down from the Primitive Indo-European and belong to the same semantic domain. It is therefore our assumption that this third set of expressions for man too is significant and etymologically means a being who can speak in contrast to his other fellow beings on the earth which cannot. While in the former two sets of expressions for man, the mortal inhabitants of the earth is contrasted with gods, the immortal inhabitants of heaven, in the third groups of expressions the same human being is contrasted in relation to his ability for use of language, to produce articulate sounds forming a language, with animals which have no born capacity for this. It is only man, who in his normal physical development, cultivates the faculty of speech. Therefore, speech, or ability to speak, should be regarded as his special and exclusive characteristic which distinguished him from all his fellow-beings from the very date when the Homo Sapiens started to walk on this globe. It is quite interesting in this connection to note the Bengali word *a-bola*, the Slavic word *nye-myets* † (nie-miec) and the Greek word *á-logos* for animal and the Sanskrit phrase *mūka-paśu* used of course ironically for a dumb and meak person, (cp. Russian *ne-moi* = dumb, deathly still) which all equally emphasize on that quality of an animal which is bereft of speech. The word *nye-myets* (nie-miec)

† The word also means a German who is normally unable to understand the Polish and hence as good as dumb (*nie miec*) to the Slavs.

is of particular interest to us here. Philologically it implies one-with-no-words and the second member of the compound, i.e., — *myets* (miec), the French word *mot*, and the Russian *moi* are derived from the Primitive Indo-European *men, *mon or *man to which the Greek word *mentōr* (= Sanskrit *mantri-* meaning a councellor) was connected. Therefore may we assume that the word *manu-* philologically means 'one who utters articulate sounds forming a language'. This, in plain, is in striking contrast to his other fellow beings on this globe which are devoid of speech — *vyaktā vāk*.

5. The Vedas, the oldest literary monuments of the Indo-European family, supports our theory. They have preserved this original root in this sense, while all other languages of this family, including Indo-Aryan have lost it. Classical Sanskrit, however, has preserved one or two derivatives with its original meaning, viz. *man-tra* and *man-d-ra*. But while the former was, wrongly of course, derived from √*madi*, *gupta-paribhāṣaṇe*, to whisper in secret, a secondary root invented by the Dhātupāṭhakāra in *Curādi* to justify the formation of *man-tra*, the latter's derivation is just left to be imagined with grammatical sanction to connect it with √*madi*, *stuti-moda-svapna-kānti-gatiṣu* (Bhū-ādi) (Ref. Uṇ. 2.13 *Sphāyi-tañci-*). *Man-d-ra* which means sonorous or whispering, of course, cannot be derived from the above root. We have to seek its derivation either from some other homophonous root or change its meaning. But, we find *mandra-* used in classical literature in the sense of sonorous or resounding as it is evident from *mandra-snigdhair dhvanibhir abalā-veṇi-mokṣo- tsukāni*, (Megh. 100) and *mandraṁ janayati svaram* (P. Śikṣā 7[b]) [Cp. *mandras tu gambhīre (dhvanau)*, *Amara* 1.7.2.]. We also come across another word, viz. *man-mana-* derived from the same original root and used in the sense of whispering in the ear. But this has assumed the form of a technical terminology in *Kāma-śāstra* in the sense of confidential whisperings of love-makers (*surate karṇa-mūle tu nija- deśīya-bhāṣayā/dampatyoḥ kathanaṁ yat-tu manmanaṁ taṁ vidur budhāḥ // Harāvali.* 1.20) and in Haṭa-Yoga in the sense of a particular defect of the organs of speech (*manmanatva-*). All the same we can trace these terms back to Vedic √*man-a* 'to utter'.

6. It is a matter of gratification to note that Pāṇini states that √*man-a* is a substitute (*ādeśa*) of √*mnā* to rote, to utter, though the reverse was the fact. But, however, in classical Sanskrit we do not come across a single example where √*man-a* in its verbal forms was used in the sense 'to utter or speak'. Sāyaṇa, the great Vedic Commentator, but for whom the greater part of the Vedas would have remained unintelligible to the posterity, have greatly helped us to unearth this root from the Vedas. In his commentary wherever the verbal or derivative forms of √*man-a* occur, he tells us that √*man-a* in such places is identical in meaning with √*mnā* of the Dhātupāṭha: e.g. . . . *maṇāmahe yācāmahe. manyatir yāñcā-karmā. chāndasaḥ śap. yad vā. punaḥpunar abhyasyāmaḥ - lipsīmahīti yāvat. 'mnā abhyāse'. vyatyayenātmane-padam. śapi pā-ghrādinā man- ādeśaḥ* (ṚV I. 159.5). It is true that Sāyaṇa hits out at the point though on the reverse side. Nevertheless he has enabled us to correctly interpret many passages and words in the Vedas with his helpful explanations trying to establish

the relation or identity between √*man-a* and √*mnā*. It must be admitted that while the latter (*mnā*) has still retained its meaning the former (*man-a*) is altogether lost to the post *Saṁhitā* literature except in a few of its derivatives. In fact √*mnā* is only a contracted form of √*man-a*, originally used in the exclusive sense of loud recitation or repeated recital of the sacred text. It is also used in the sense of saying with authority or scriptural sanction (*Śrī Kṛṣṇa uvāca:— brahma-bandhur na hantavya ātatāyī vadhārhaṇaḥ/mayai'vobhayam āmnātaṁ pari-pāhy-anuśāsanam* // Bhā. 8.53) The Vedas, therefore, are collectively known as *ā-mnāya*, i.e. philologically a text that is studied by loud repetition. The word Avesta, standing for the Parsi Scripture too literally means repeating, studying by repetition. It must, however, be pointed out that no modern interpreter or Vedic Scholar has taken due notice of Sāyaṇa's explanation of √*man-a*. Pāṇini has listed eleven roots in his Sūtra: *pā-ghrā-dhmā-sthā-mnā-dāṇ-* . . . (P. 7.3.78), (which, of course, Sāyaṇa quotes in his commentary) and said that *piba-jighra-dhama-tiṣṭha-mana* etc. are the substitutes (ādeśas) of the original roots under certain conditions. But the truth is that some of these so called substitutes were as much independent roots as those in whose place they are now substituted. They have survived in usage today only in a few *lakāras* (tenses and moods). It is noteworthy that √*mnā* which Pāṇini believes to be the original root is not found in the Ṛgveda at all, whereas √*man-a* is freely used in its original meaning in many tenses and moods and in its primary derivatives.

II

We come across in the Vedas, especially in the Ṛgveda many verbal forms and primary derivatives formed from the root √*man-a* to speak, to utter. There are verbal forms such as *manyate, manāyati, manāmahe, amata, manmahe, maṁsīmahi, masīya* etc. and over 18 primary derivatives such as *man-tra-, man-d-ra-, man-man-, su-man-tu-, dur-man-tu-* etc. Here the verbal forms such as *maṁsīmahi, masīya* etc. were derived from the root √*mans-* or else from √*man-a* itself with infix -s-. The derivative verb *mīmāṁsate*, = 'questions', must have actually been formed from this root. This verb, though appears to be desiderative of √*man-a*, to think, is actually not so, since it means in the Vedas 'to question, to ask, to seek'. This may be the intensive form of √*mans*. Now we may give examples from the Vedas in an attempt to prove our contention. However, for the sake of brevity, I may quote only very few selective examples which will amply support what I have so far stated.

1. *manāmahe.*

kathā́ devā́nāṁ katamásya yā́'mani sumántu nā́'ma śṛṇvatā́ṁ manāmahe /
kó mṛḷāti katamó no máyaskarat katamā́ ūtī́ abhy-ā́-vavartati // ṚV. X.64.1.

In this verse the Vedic Rishi is confronted with the question of selecting a right god whose name should be *sumántu* 'well-pronounceable or easy to be pronounced' — *suṣṭu mananīyaṁ stotavyam* . . . Sāyaṇa — easy to be recited or uttered during the sacrificial session. He is also anxious to select such a one among the gods who should always be kind to him, will make friends with him and run to protect him whenever he is

confronted with difficulties. Therefore, the Rishi is eager to select the right god and the right or correct name of that god which should be easily and distinctly pronounceable without any ambiguity. Here *manāmahe* clearly means 'shall we pronounce or recite' and not 'shall we think' as it is usually rendered by the modern interpreters. GELDNER explains it as 'sollen wir gedanken', while Sāyaṇa as *uccārayāmaḥ*. The Gods are assured to be *havana-śruts* (ṚV. 6.52.10, 8.67.5 etc.); they always respond to the calls of their devotees but such calls should be clearly audible and correctly pronounced — *sumántu* — to avoid confusion because the sacrificial session here is attended by all gods, *Víśve-devā́s*. The question the Rishis ask themselves is whom among the gods, (who are all eagerly listening to) they should invoke by clear and distinct name. In this context *manāmahe* definitely means 'shall we utter?' and not 'shall we think'.

Here in this verse we have, besides, an example for possessive absolute in Vedic syntax, which was believed not to have existed (MACDONELL, *Vedic Grammar*, 205.2) in the Vedas. '*devā́nāṁ katamásya . . . nā́ma śṛṇvatā́ṃ manāmahe*' is a classic example for genetive absolute and clearly means "while gods listening, we shall pronounce".

2. *manmahi.*

pípartu mā tád ṛtásya pravā́canaṁ devā́nāṁ
yán manuṣyā̀ á-manmahi /

ṚV. X.35.8 ab.

Here the Vedic devotees, seeking help and protection from *Ṛta*, the Universal Order or Eternal Law by which even the divine beings are restrained or controlled, assert that they have uttered or repeated the same laudation of *Ṛta* which was once composed by gods themselves. The devotees in a humble way express that, knowing the limitations of mortals as they do, they have not composed a new *pravācana* or laudatory verses in honour of *Ṛta*, but have taken the same, composed by the gods. Here *pravā́canam ámanmahi* like *vācaṁ brūte* is an idiomatic expression and *ámanmahi* obviously means 'recite or utter' and not *kartuṁ jānīmaḥ* or 'we acknowledge' or 'eingedenk sind' as Sāyaṇa, GRIFFITH and GELDNER respectively would have it.

3. *Bráhmā ta indra girvaṇaḥ kriyánte án-atidbhutā/*
imā́ juṣasva hary-aśva yójané'ndra yā́ te á-manmahi//

ṚV. VIII.90.3.

The Vedic Rishis pray Indra to accept the hymns of praise which they have sung or are singing in his honour. Here Indra is called *girvaṇaḥ*, lover of praise, or one who always craves for flattery. The praises composed are *án-atidbhutā*, unheard of before or unsurpassed. These *yójanā*-fitting hymns, which the Rishis are reciting in his honour are, of course, worth listening and are to be accepted.

Praises are always loudly sung and not silently meditated upon. The person who is being praised here is a craver of flattery who will not be satisfied unless his praise is loudly sung. Therefore *ámanmahi* cannot mean 'we have thought out' or 'wir . . . erdacht haben', but 'we have just (loudly) recited (*yā́ te ámanmahi* = *tvadarthaṁ yāni strotrāṇi vayam uccāryāmaḥ*). Here *te ámanmahi* is an idiomatic phrase just as *tubhyaṁ bravīmi*, a very common phrase in Sanskrit with verbs meaning 'to speak'. It does not appear to be the usage to use dative or genetive in association with verbs meaning 'to think' in Sanskrit. Therefore *te*, the dative of second person pronoun is very significant here.

We have further passages in the AV. where *manmahe* and *staumi* are alternately used to convey the same idea, e.g. *vāyóḥ savitúr vidathā́ni manmahe . . .* (AV. IV.25.1) — we loudly praise the glory of Savitṛ, of Vāyu — and *staumi deváṁ savitā́raṁ ca vāyúm* (AV. 25.7) meaning the same. It is further interesting to note that *manve* and *manmahe* are freely exchanged in the Saṁhitās, e.g. *índrasya manmahe śáśvad ídasya manmahe* of AV. (IV.24.1 Śaunaka Saṁhitā) is found in Paippalāda as *índrasya manve śáśvad yásya manvire*. Similar passages are found in *Yajus Saṁhitās* also. What is noteworthy here is the free exchange in these *Saṁhitās* of the verbs *manmahe* and *manve* and further the use of genetive in relation to verbs. We must mention here that in many similar phrases *manve* or *manmahe* is replaced by *staumi* as in *agnér manve* (AV. IV. 23.1) *staumy-agním* (AV.IV.23.7) *índrasya manmahe* (AV. IV. 24.1 . . .) *staumī́ndram* (AV.4.24.7) *bhavās'arvau manve vām* (AV. 4.28.7) *staumi bhavās'arvau* AV.IV.28.7) etc., with the only change of genetive into accusative when the verb is *staumi*.

4. *manyase*

ásya hí svá-yaśastara āsā́ Vidharman mányase /
táṁ nā́kaṁ citrá-śociṣaṁ mandráṁ paró manī̄ṣā́yā //
ṚV. V.17.2.

Sāyaṇa, again plainly interprets *ásya āsā́ mányase* as *amum agnim āsyena vācā stauṣi*. The modern interpreters, to our surprise, seem to have felt some difficulty in understanding this very common Vedic phrase *ásya āsā́ mányase*. In his foot-notes, GELDNER clearly confesses his inability to understand the verse and says that the verse is obscure — *dunkel* — and the word *āsā́* is ambiguous — *doppelsinnig*. He explains the phrase as:— . . . durch seinen Mund kommst du dir . . . vor (Denn durch seinen Mund kommst du dir noch selbstherrlicher vor . . .) 'with thy mouth, thy thinkest thyself', whereas GRIFFITH says: "Near him thou seemest". It is obvious from this that the modern interpreters have not been able to understand the correct meaning of this verse. This was mainly due to their persistent unwillingness to accept the plain interpretation given by Sāyaṇa to the verb *mányase*, which clearly in the context means 'thou praisest'. Further the word *āsā́*, with mouth, meaning 'with words', in this phrase admits of no other interpretation. Does one think or speak with mouth?

Again the word *ásya* is misinterpreted by the modern commentators. It is well-known that in Vedic syntax genetive is often used in place of accusative. This idiom again unwittingly misled GRIFFITH as well as GELDNER. The latter applies *ásya* to *āsā́* and interprets 'durch seinen Mund', while the former explains *ásya* as 'near him'. Further from the context too no explanation other than what Sāyaṇa gave is appropriate and apt. For instance, in the previous verse Puru praises Agni for favour — *Agníṁ kṛté svadhvaré pūrúr īḷītā́'vase* — (ṚV. V. 17.1 cd) and in the third and fourth verses the same *Agní* is again expressly being praised — *yá ā́yukta tujā́ girā́', agnír vikṣú — práśasyate* — (ṚV. V.17.3[b] and 4[d]). Thus the praise of *Agní* is verbally expressed in all these verses. Again *mandrám* in ṚV. V.17.2 is used as an adjective of *Agní* in the sense of *stutya* according to Sāyaṇa, though this interpretation is not accepted by the modern translators. It is noteworthy in this connection that *mandrám* in *mandráṁ paró manīṣáyā* (ṚV. V.17.2[d]) is replaced by *rudrám* in *rudráṁ paró manīṣáyā* (ṚV. VIII. 72.3) and both are adjectives and identical in meaning. *Mandrám* actually means making noise, i.e., the sacrificial fire while consuming the oblations offered him, makes noise, he expresses as it were, his satisfaction.

5. *ámanuta.*

ádha dyutānáḥ pitróḥ sácā'sā́'manuta gúhyaṁ cā́ru pṛ'śneḥ //
mātúṣ-padé paramé — ánti ṣád gór vṛ'ṣṇaḥ śocíṣaḥ práyatasya jihvā́ //
ṚV. IV.5.10.

Here too *āsā́ pṛ'śneḥ cā́ru gúhyam ámanuta* means with mouth he (Fire) uttered secret and beautiful name of the Cow. One does not think of a name with mouth but utters it.

6. *masīya*

tádadyá vācáḥ prathamáṁ masīya yénā́'surā́ṁ abhí ásāma /
ū́rjāda utá yajñiyāsaḥ páñca janā máma hotráṁ juṣadhvam //
ṚV. X.53.4.

Here *Agní* declares that he *will utter* that speech formula which is first and foremost or most important and by which the gods and he can overcome the demons. *Vācáḥ masīya* clearly means 'I will utter words.' Both Sāyaṇa and GRIFFITH render it correctly but GELDNER still sticks to his gun. For him *masīya* means *erdenken* (Als Anfang meiner Rede will ich heute das erdenken). There are other verbal forms such as *mamsīmahi, amamsata* etc. found used in the Vedas in this meaning.

We have said before, that *maṁsate, masīya* etc. were derived from √*mans-a* or from √*man-a* itself with infix *-s-*. But we believe √*mans-a* was an independent root with Indo-European parallel √*mens* from which the word mention came in English. The Prakrit word *mhaṇa* 'to utter', must have been derived from this Vedic root. It

is a well-known fact that Prakrit has inherited many a Vedic form and usage as also vocables direct from the Vedic Sanskrit. In this respect, Prakrit is nearer to the Vedic language than to Sanskrit.

Scholars such as J. BLOCH and others believed that *mhaṇa* was formed from √*bhaṇa*, a root, which also goes back to Indo-European with its parallels in many languages of this family. But no scholar has ever attempted to explain the process of evolution which converted *bhaṇ-a* into *mhaṇ-a* for obvious reason. Linguistically this phenomenon cannot be explained and phonetically it is impossible. *Bhaṇ-a* at the most may change into *haṇa* but not *mhaṇa*, for *bhaṇati* in Prakrit remains as *bhaṇai*. No known rule in phonetics can explain the presence of *m*, the labial nasal sound in the beginning here. There are one or two examples where reverse process has taken place in Prakrit, that is, *maha* is changed into *bha* as in *bhaims-a* in Hindi from *mahiṣa*. But here we must note that the nasal sound has asserted itself during the process of evolution. Therefore, we are afraid, it is impossible to justify the presence of *m* in *mhaṇ-a* if it was formed from √*bhaṇ*-a. It is therefore most likely that *mhaṇ-a* was derived from the Vedic root √*mans-a* first through process of metathesis and then by change of *-s-* into *-h-* i.e. *mans-a* > * msan-a > *mhaṇa*.

III

Now coming to the derivatives we are going to cite only one or two examples, viz. *mán-tra* and *man-d-rá*. The word *mán-tra* is derived by the scholiasts from the root √*matri*, with the suffix *ac*. The word, of course, can be derived in this way but the Vedic *mán-tra* was not derived from √*matri* with suffix *ac* for the obvious reason that *mán-tra* is always accented on the first syllable. If it were *ac* the accent must have been on the last syllable. Therefore, it was derived from √*man-a* 'to utter' with suffix *tran*. Since *-n* from *tran* is dropped on formation of the word, accent shifts on the first syllable. Similarly the word *man-d-rá* was derived from the root √*mad-i* with suffix *rak*. As far as the suffix is concerned we have no two opinions. But the root from which the Vedic *mandrá-* meaning *sonorous* or *whispering* was formed, is not √*mad-i*, but √*man-a* with suffix *-ra* and a glide *-d-* in between in the same way as *can-ra* became *can-d-ra* and *in-ra* became *in-d-ra*. This is not an unknown phonetic process that in conjunction like *n* + *ra* the glide *-d-* gets in, as is evident from examples like *sundara-* from *sūnara-* > * sunra > * sun-d-ra and then with anaptyis *sundara-*; *bandar-a* in Hindi from *vānara-* > * vanra > * banra > * ban-d-ra and then with *svarabhakti* *bandar-a*, and the Greek word *andros* from *aner*. There are examples where we have the glide *-d-* without *-r-* to follow. For instance *mandiṣṭha-* and *bhandiṣṭha-* both are identical in meaning and were formed from √*man-a* and √*bhan-a* respectively. Here we may say that the word originally might have been *man-d-r-iṣṭha* and *bhan-d-r-iṣṭha* from which later *-r-* was dropped.

There are many more derivatives from this lost √*man-a* to speak, in the Vedas. For the sake of brevity they are not dealt with here. The whole subject is being dis-

cussed at length in a separate monograph. However, I must mention here one more word, viz. *mātā*, the derivation of which was so far said to be doubtful by the philogists. I wonder if this word too, could be connected with this √*man-a* for, it is the mother who first teaches a child as to how to speak. While a father's role in ancient family was essentially to protect, a mother's was to nurse and teach. A baby while sucking the breast milk of the mother gradually learns how to speak, first hearing the nursery rhymes sung by the mother and then the words uttered by her. Therefore, the word *mātā* may be aptly interpreted as one who makes the child speak.

We have thus made an attempt in the foregoing pages to prove that √*man-a* in the Vedas also meant 'to speak, to laud,' etc. and that in many passages this is the only meaning, which is the most appropriate. This meaning, though it was expressly given by the scholiasts like Sāyaṇa, Mādhava and others was not, however, seriously taken notice of by the modern Vedic interpreters. They have accepted only the meaning recorded in the *Dhātupāṭha* and classical literature. Nevertheless, GRIFFITH had to make exceptions to this rule here and there in his translation and follow the Scholiasts. GELDNER, who was persistent throughout has, however, attributed ambiguity in meaning to many passages. Yet he has rendered *man-d-ra-* in one place as *wohlredende*, eloquent or well-spoken or well-speaking and, thus, indirectly acceded this meaning of speech to √*man-a*. There are several passages where the meaning 'to think' or 'deem' may be tolerable, yet the meaning 'to speak', in such places fits better and yields better sense. We, therefore, assume that there were three homophonous roots in Sanskrit: (1) meaning to utter, to speak, to praise; (2) to think, to deem, and (3) to understand respectively with their cognates in Indo-European languages. All but the Vedic Sanskrit, have lost the first while other two are found in many Indo-European languages and are still in vogue.

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NOMINAL SUFFIX * -*a* IN SANSKRIT

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This is an endeavour to simplify the presentation of the suffix-structure in Sanskrit by using the methods of structural linguistics, initiated by Bhagavān Pāṇini and developed by modern linguistics. The paper seeks to make a test-case of the suffix -*ā* of the Instrumental singular.

Leaving aside the consonantal stems, Pāṇini has proposed:
-*ina* for *a*-stems (m.n.). P.S. 7.1.12.
and -*nā* for *i*- and *u*- stems (m.n.). P.S 7.3.120.

On an analysis, we take out the infix -*n*- from both the substitutes, as we do in the case of the suffix of the genitive plural. Then what remains is:

-*i*	-*n*-	*a*
-	-*n*-	*ā*

On the left hand side, what remains of the *a*- stems is -*i*, which happens to be the part of the morpho-phonemic change in the stem.

Whereas, on the right hand side, there is -*a* as the suffix for *a*-stems, which, in reality, is nothing but the reduced form of the usual suffix- -*ā*, which is affixed to the *i*- and *u*- stems on the one hand and the consonantal stems, on the other. So,

-*a* ~ -*ā*

Now, the morpho-phonemic change in the *a*-stems would be -*a* + *i* = *e* before the infix-*cum*-suffix -*na* is affixed to it. As there will be no morpho-phonemic change in *i*- and *u*- stems the infix-*cum*-suffix will be -*nā* and for the rest of the stems it will be -*ā* without the infix -*n*-.

Thus by employing the method of structural analysis, it is possible to keep close to the traditional suffix -*ā* which, with reduction and combination with the infix -*n*- is able to generate all kinds of Instrumental Singular forms in all genders as follows:—

a- stems (m.n.)

Nouns m.	*deva*	:	*deve*	+	-*n*-*a*	=	*devena; rāmeṇa.*
Nouns n.	*jñāna*	:	*jñāne*	+	-*n*-*a*	=	*jñānena; vanena.*
Adjectives	*catura*	:	*cature*	+	-*n*-*a*	=	*catureṇa; gatena.*
Numerals	*eka*	:	*eke*	+	-*n*-*a*	=	*ekena; prathamena.*
Pronouns	*ta*	:	*te*	+	-*n*-*a*	=	*tena; yena, kena.*

ā- stems (f.)

Nouns	*ramā*	:	*rame*	+	*ā*	:	*ramay*	+	ā	= *ramayā, mālayā.*

Personal pronouns	*tā*	:	*te*	+	*ā*	:	*tayā; yayā, kayā.*
	ma/mā	:	*me*	+	*ā*	:	*mayā; amuyā.*
	tva/tvā	:	*tve*	+	*ā*	:	*tvayā; sarvayā.*

i- and *u-* stems (m.n.)

muni	+	*-n-ā*	=	*muninā; agninā, hariṇā*
bhānu	+	*-n-ā*	=	*bhānunā; vāyunā, manunā*
vāri	+	*-n-ā*	=	*vāriṇā; dadhnā.*
madhu	+	*-n-ā*	=	*madhunā*

i- and *u-*, *ī-* and *ū-* stems (f.)

mati	+	*ā*	=	*matyā; gatyā, rucyā*
dhenu	+	*ā*	=	*dhenvā*
nadī	+	*ā*	=	*nadyā*
śvaśrū	+	*ā*	=	*śvaśrvā*

With morpho-phonemic substitution of *-iy-* and *-uv-* in the stem:

dhī	:	*dhiy*	+	*ā*	=	*dhiyā; śriyā, bhiyā, striyā*
bhū	:	*bhuv*	+	*ā*	=	*bhuvā; bhruvā*

All consonantal stems (m.f.n.)

m.	*marut*	+	*ā*	=	*marutā; bhūbhṛtā, kartrā, candramasā, bhagavatā, ātmanā, kariṇā*
f.	*sarit*	+	ā	=	*saritā; vācā, kṣudhā, prāvṛṣā, śaradā.*
n.	*jagat*	+	*ā*	=	*jagatā; varmaṇā, dhanuṣā, nāmnā, manohāriṇā.*

By a careful study of the above forms, we are led to observe: that the infix *-n-* is inserted in all stems other than the feminine and the consonantal stems (including stems ending in diphthongs);

that the morpho-phonemic -e'ing is common to *a*-stems (m.n.) and *ā*-stems (f.) which come from the self-same IE * O-stems,

and that the presence of the infix *-n-* together with the morpho-phonemic -e'ing of the stem appears to have reduced the suffix *-ā* to *-a*.

Looking into the genesis and history of this suffix we discover that the old Indo-Aryan contains *-nā* ~ *-na* in pronominal and nominal forms such as *enā́* and *enā́*, *vīrieṇā* and *vīrieṇa* and so on. This is not metrical lengthening. When there are hundreds of such cases in the Vedas noted by Prof. LANMAN, in his *Noun-Inflection in the Veda* (pp. 332 ff.) we should not require any further corroboration. The suffix *-a*, independent of the infix *-n-*, will have to be found out, as the cases of *yajñā́*, *ukthā́*, *mahitvā́* or *mahitvaā́* and *ghanéva* are not quite clear. In Avesta, the suffix *-a* of the Inst. sg. was also written as *-a* (WACKERNAGEL, Band III, p. 91). In the circumstances, there should be no harm in postulating the Instrumental singular suffix **-a* in allomorphic variation with the usual suffix *-ā*. From the pedagogical viewpoint, it is certainly useful to take out the infix *-n-* and to re-organize all such forms around the traditional suffix *-ā*.

As for the morpho-phonemic -*e*'ing which together with the infix -*n*- seems to be the condition for reducing the suffix -*ā* to -*a*, it may be pointed out that it is not noticed by Pāṇini. Pāṇini splits it into -*a* + -*i*, the -*i* being joined to the suffix. Prof. LANMAN would like to combine the entire -*e*'ing of the stem to the suffix. So his suffix is -*enā* ~ -*ena* for Pāṇini's -*ina*. But looking to the tendency of the traditional suffixes inherited by Pāṇini, the morpho-phonemic change or even a part of it is never combined with the suffix. The suffix -*bhyas*, for instance, as read by Prof. LANMAN is -*ebhyas*, while Pāṇini had to make a special provision in *aṅgādhikāra* section to explain -*e* as the change in the stem before a case-suffix is affixed to it. He has stated that the *a*-stem should be -*e*'ed in plurals, *a*- and *ā*- stems in duals and *ā*-stems in the singular as well before certain suffixes. To cite his *sūtras*:

bahuvacane jhalyet.	P.S. 7.3.103.
osi ca	P.S. 7.3.104.
āṅi cāpaḥ	P.S. 7.3.105.

In the same strain, we may add the Instrumental singular forms of *a*- stems by composing a *sūtra* like

* ataśca. (or * āṅi cātaḥ).

Pāṇini did not rope in these forms under his general rule for morpho-phonemic -*e*'ing of *a*-stems because of his different way of splitting.

This holds good for pronominal stems as well.

FOR A THEORY OF INDIAN SOCIOLOGY

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At the outset I must state that this is a working paper. I am making certain statements here in order to provoke discussion and elicit comments and suggestions. We have been hearing a great deal about the distinctive nature of the Indian social system and the consequent need for rejecting theoretical formulations given by Western Sociologists which are said to be applicable only to Western Societies.

In India the development of social science is a very recent phenomenon. One can say without any fear of contradiction that there has been no development of any theoretical formulations as far as the Indian society is concerned whether in the economic sphere or political sphere or sociologial sphere. Economics which is considered to be a well developed science in India has not also been able to offer any theoretical formulations, apart from the application of western models of economy with, of course, certain modifications. The same holds good in the case of Political Science, Psychology and Sociology.

After the advent of British Power, thinking persons in India started giving a great deal of thought to India's past history, glory etc. Out of these, as well as, the efforts of foreign rulers, administrators, scholars, etc., there developed what are known as the Indological studies emphasizing the continuous, unbroken tradition of India. Intellectuals were also on the defensive in so far as they took to Indological studies with a passion, because they were interested in reassuring themselves about the glorious achievements and past history of India in spite of the fact that India has been subjugated by the British. Moreover the Indian social system was proved to be quite inefficient in comparison with the western civilization, progress, etc.

Sociology as a subject was first introduced into India in early 1920's. Some of the scholars who were trained in Sociology happen to be very well trained in Sanskrit, Indology, etc. This fact has important implications for the development of Sociology in India. In this paper is stressed, in a very brief fashion, the position taken by Sociologists in India as well as some of the Sociologists from abroad in regard to the study of Indian Sociology. It is necessary to do so in order to analyse the theoretical formulations pertaining to Indian Sociology. After analysing the contributions of Indian Sociologists and some of the foreign Sociologists an attempt will be made to provide a frame of reference for sociological studies in India, thereby suggesting the theoretical formulations. Last of all the problems, viz., whether or not one is justified in talking in terms of distinctive Indian Sociology will be discussed.

I

Historically in India the development of Sociology has to be traced to Indology. Scholars both Indian as well as foreign turned to the study of Sociology from Indology. This has also given rise to a peculiar approach on the part of the scholars in so far as a great deal of emphasis was placed on the study of origins of social institutions, their historical development etc. Moreover the deep impression which India's unbroken and continuous tradition made on the minds of the scholars made them oblivious to process of change. Undue emphasis was placed on stability and the unchanging nature of the Indian social system. Thus certain scholars have occupied themselves primarily with the study of historical development of institutions like caste or family, kin, etc., depending for their analysis on models provided by traditional India. Likewise a great deal of emphasis was placed on the cultural history of India with special reference to philosophy, metaphysics, etc., in order to explain certain institutions like caste. Some authors have maintained that the institution of caste can be put into proper perspective by understanding the Indian philosophy, particularly the concept of *Brahma*. The point which is sought to be made is that the philosophical thinking in India was one of the important factors in shaping the social institutions such as caste. These scholars were so much occupied with the Indological or culturological or philosophical development that they rarely came to grips with the sociological problems as such. As mentioned in the introduction, during the British rule in particular, the defensive attitude was quite reflected in this emphasis of Indological approach to sociological studies in India. After the independence, due to whatever reasons there has been a great measure of impact of western Sociology on Indian scholars, giving rise to in certain cases a wholesale and uncritical acceptance of the basic view point as well as the methodology of western Sociologists. This has given rise to a strong reaction amongst certain Sociologists in India who took upon themselves to emphasize the role of tradition in India, so to say, that knowledge of Sociology came to be equated particularly in the Indian context. It was suggested unless one has a thorough grasp about the knowledge of traditions in India, one cannot be a good student of Indian society. It was further stressed that in India formulations of western Sociologists would not hold good, because here the basic premise of analysis would be "group" rather than the "individual". Moreover in India people were prone to conform to group norms, patterns of living, ethical notions etc. The individualistic orientations to life and reality was completely lacking, therefore, the formulations of western Sociologists would not be useful. There are certain scholars who feel that due to the peculiarity of the Indian tradition, viz., that a theory of social organization is founded on a theory of religion, ethics, philosophy etc. The concepts of modern Sociology would not be of any avail.

Actually I am given to understand that certain efforts are made to substitute Indian concepts like *Dharma*, *Artha*, *Kāma*, etc., for replacing concepts in modern Sociology. Of course no evidence about successfully carrying out this process of substitution has been forth coming. Majority of these ideas can be attributed to Indian scholars.

Turning to foreign scholars one finds that some of them also strike the same note, though in a very restrained manner. Thus some of them feel that the Indian society is unique in view of its emphasis on religion for explaining all manners of social phenomena, inter-action, behaviour etc. The religious and the philosophical factors dominate the Indian social system so much so that the political or economic factors are not included or at least under-rated considerably. For instance, even the economic aspect of caste interdependence is sought to be explained in purely religious terms. The caste system and religion in India are specially selected for a careful analysis by some of these scholars. This point of view is primarily that of structural analysis trying to look for the unity of India in terms of its major institutions such as caste and religion. Such an approach insists to study caste and religion as ideal types rather than as functioning entities in day to day life. Great amount of stress is placed on stability rather than change.

Such scholars emphasize the common approach to the study of rural and urban Sociology in India on the assumption of the basic unity of India in respect of social-structural features, viz., kinship and caste and religion. Of course, this *per se* is a very crucially important point of view, but the genesis of this point of view is to be traced to the notions of stability of the Indian social system. On the other hand certain other scholars think there need not be any such approach for the study of Indian Sociology. The usual comparative method would be equally useful in the study of Indian Sociology as elsewhere. All the institutions in India also should be studied from the comparative point of view.

Naturally this opens the possibility of using the same theoretical formulations for the study of Indian Sociology. Some scholars in India recently have been quite conscious of the fact that the sociological studies in India, by and large, lack rigorous theoretical frame of reference. As such most of the studies tend to be purely descriptive and explanatory. In fact, one of the banes of sociological studies has been the relative lack of theoretical sophistication and a definite frame of reference for such studies, due to which the studies tend to be purely descriptive, and do not add much to our knowledge. Another factor which has perpetuated this situation is the equally great deal of emphasis on empirical survey which completely lack any kind of theoretical sophistication, formulations, etc. It is admitted that despite the numerous village studies which have been completed in the recent past there has been hardly any theoretical sophistication about them. This naturally gives rise to lack of development of theoretical corpus or theory-building. Naturally any kind of theoretical generalisations are not possible.

II

It has been mentioned earlier as to how the Indian social system has been largely influenced in terms of its continuing tradition. The forces which have given rise to stability in the Indian society have been adequately emphasized. However, in the study of any society past or present, it is absolutely necessary to emphasize both stability and

change. Change is endemic in every social system. Therefore to postulate only of the mechanisms of stability in any society is in itself quite erroneous. So many times we find that at the cultural level there is not much change. However, in terms of social system there is a great measure of change which scholars are oblivious to, due to a particular point of view they adopt. It has been also mentioned earlier as to how in India the great role played by culture, philosophy, religion, belief-systems, etc., has lent a great measure of stability to Indian society. What is not, however, realised is that quite a few of the institutionalized arrangements have become disfunctional and therefore, have been modified in the process. Assumption of unbroken continuity is unwarranted even in institutions like kinship, caste and religion. To emphasize only philosophical beliefs, particularly, the theory of rebirth and *Karma* as the major sources of social control in India is to be oblivious to the working of economic and political processes. To cite an example, one might mention the politicization of caste since independence. Moreover one can also mention that the philosophical belief system is more on the ideational plane rather than on that of behaviour and interaction. In Sociology we have to study interaction, behaviour and of course, the values which provide the matrix for such interaction and behaviour. To put undue reliance on either would be fatal. We need a theoretical frame of reference which will enable us to account for stability as well as change in the Indian society. Thus the structural features which have held continuous sway on the social system like caste, kinship, religion needs to be studied in the context of changes worked out in the context of political and economic processes working in India. For example change which is sought to be worked out in the Indian society in terms of economic planning initiated by the Government of India needs to be properly analysed. For we can see readily as to how this programme of directed and institutionalized change has also made inroads into the structural features mentioned above. On the other hand the structural features also make it difficult for these programmes to function effectively. It has been brought out now and again that economic planning and industrialization has not succeeded to the degree expected or desired by the palnners because of the lack of cooperation on the part of the people at large. The cleavage between those who plan—who may be called caretaker elite—and the common people is quite obvious. Moreover the reorganization of regional states in India also has given rise to certain other cleavages.

The western-educated intellectual has assimilated some of the western concepts, ideologies, etc. However, he has to function in the setting of a mass of people who are not only ignorant of such concepts and ideologies but are positively opposed to them. This is also another source of cleavage which is to be taken into account.

As mentioned earlier the politicization of caste in India attendant on the development of communication and transport is also a very important factor to be reckoned with. Thus the earlier model of caste as primarily a ritual force has to be modified in favour of the current secular nature of power of caste. The changes in the belief systems that have been accruing also needs to be taken into account because so many times one finds that lip-service is paid to traditional belief system. However, on a little fur-

ther probing it is known that the terminology used might be the same, but their meaningfulness is no longer the same. Thus we have to simultaneously take note of stability and change.

It is often said that the changes which have come about in Indian society are so minor as not to affect the structure. What is not realised, however, is that the ball has been set rolling. Naturally the same criteria for analysis of Indian society which held good in earlier times would not be of much avail now. In short, the relatively static analysis would not be of much use now in the changing circumstances. We need tools of analysis to record the changes which are coming about and particularly, to indicate the direction of change because, then alone, we may be able to say about the nature of structural change or otherwise.

In order to take cognizance of both stability and change I would suggest the use of the Parsonian frame of reference for the study of Indian Sociology.

PARSONS has mentioned the importance of studying personality, culture, as well as social system in order to obtain a comprehensive knowledge about the working of any society. Personality gets affected both by culture and the social system. However, PARSONS stresses very strongly that personality in itself is extremely worth-while studying which in its own turn can also and does affect culture and social system.

Personality as a System: In the Indian context, however, the first observation one could make about this frame of reference is that culture and social system are much more important than personality. In fact there is an implicit assumption that culture and social system completely imply the personality almost in a deterministic fashion. Individual personality has no meaning or relevance except as a carrier of statuses and roles which are relevant to one's own station in life. Moreover due to the social structural features there is a steady pattern along which one's development proceeds. There is the least amount of opportunity for individuation or development of personality according to one's predilections liking, aptitude, etc. Individual personality has to be submerged either in role or collectivity. An individual merely becomes a tool for the implementation of cultural and social structural sanctions. Both thought and action are primarily guided either by culture or social system. This, to my mind, is a characteristic peculiarity of the Indian social system as against the social system in a western society. Of course this is an ideal type. There are many instances to the contrary.

Culture as a System: One of the important cultural elements in the Indian society can be traced back to the world view. The transcendentalism which is a characteristic of Hindu view of life, attitude towards life and living and particularly towards life beyond has to be mentioned. A great deal of emphasis is placed on salvation and liberation of the soul from hum-drum routine of life with all its meaningless activities, tensions, sufferings, woes, temporary joys, etc. A great amount of stress is placed on getting rid of any entanglements in the sphere of personal relations or activist orientation towards life and reality. Least amount of premium is put on achievement and initiative.

On the other hand it is decried and discredited. The Hindu view of life in this world and life in the next life etc. is contingent upon the theory of *Karma* and Rebirth which in no small measure introduced an element of pessimism and pacificism etc. Not only that, but even the impact of Buddhism, Christianity or Islam has been more in the realm of negative virtues rather than positivistic activity orientation towards life and reality. Thus Hindus were very quick in assimilating Buddhistic concepts of avoidance of certain things, as well as the sin concept attendant on Christianity. Negative virtues are extolled and much is made of the virtues of abstinence. One might argue that this is not a characteristic which is relevant to Vedic Hinduism but a much later development. All the same one has to remember that this characteristic came to stay and dominate much of life and thinking in India, and is dominating even now. Greatest premium was put on individual liberation. Discrediting of activist and achievement orientation of life was there. However, one must also remember that this individual liberation was contingent on one's playing effectively, efficiently and without complaining, the roles incumbent on the status accorded to one by the social system.

Social System: In India as everywhere else, the social structure is based on the network of social institutions. Some of the important institutions in India can be mentioned: i) relational such as caste and its age grades, ii) regulative such as kinship and marriage, and iii) cultural such as rituals, beliefs etc. The caste system, which is very well known, has been largely determining one's role and status in society. Its implications for one's duties, rights, obligations, privileges, pattern of life and living, norms, values etc. are well known. Caste system is being castigated for its segmental nature. All the same, one had to attain one's salvation within the four corners of the caste system. It is true, that there were certain channels of mobility such as those exemplified by warfare and conquest, by unflinching devotion to God. But, by and large, one had to resort to rules of behaviour which were dictated by one's caste. All internal relations were also dictated by and large by the caste system. Any kind of personal predilections or feelings do not have any say in this matter. Caste rules had to be strongly adhered to. The institution of age-grades has played a very important role in the Indian society by allocating roles and duties to its members, due to cultural sanctions which perpetuated the system of age grades. People looked upon this institution as something which is permanent and has an unchallengeable validity. Thus caste system, on the one hand, and the age-grade system on the other, complete the crystalisation of status and roles in such a manner that any change or modification is impossible even to conceive of. Kinship and marriage which are broad types of regulative institutions, took care to see that the individual would be largely governing his private life by these mechanisms. The collectivity characterised by kinship has played an important role and continues to do so even now. Therefore, the least amount of premium is put on individuation. It even affected the interpersonal and intergroup relations etc. Religious beliefs and values characterised by cultural institutions had a great amount of impact on people's thoughts and actions, relationships, etc.

As everywhere else role is the common denominator of social system. Here, however, there is a great amount of importance given to collectivity rather than the individual personality. All throughout one's life, ways of thinking and one's interaction, one's relationships are largely determined by the collectivity to which one belongs. There is a great amount of collectivity orientation in India as against individualistic orientation. The importance of one's values need hardly be mentioned, which is self-evident.

Talking in terms of functional pre-requisites one finds in India that greatest amount of premium is put on pattern-maintenance rather than on adaptation and goal-attainment. In this context one must observe that in India the major source of authority has been tradition. Naturally any kind of rational orientation which requires us to examine the issue in a fresh manner is not possible in the Indian setup. The functional pre-requisites also are given importance according to a given culture. The Indian culture puts a premium on pattern-maintenance and integration.

Nature of Urbanization and Industrialization in India: It might be argued that what I have been describing so far is primarily a characteristic of the rural society in India. However, I want to say that the nature of urbanization in India needs to be carefully analysed before one can say that what is a broad type of urbanization and industrialization in a western society is also applicable and relevant in the Indian context. I have mentioned in some of my papers that the nature of urbanization and industrialization is very peculiar in the Indian context, in the sense that there is a superimposition of western features on the core of traditional thinking, values, patterns of behaviour, interaction, etc. I contend that the basic core of tradition has not been very significantly affected or particularly at least not been given up, even in the urbanized and industrialized areas. Thus as I have mentioned in one of my papers[1] along with the westernization and seculiarisation etc., there is the hard core of great tradition *Varṇa*, etc. even in the urban and industrialized setups in India. The higher castes and elite carry a back-log of great tradition *Varṇa* complexion, etc. with them even in an urban situation. In this context I want to point out the usefulness of Parsonian pattern-variables to analyse the Indian setup.

The Indian Elite: SHILS in his study on intellectuals in India has said that the intellectual elite are torn between tradition and modernity. SHILS, further, observes that Indian intellectual is largely governed by the cultural traditions, notwithstanding his professed views to the contrary. Even the new elite which are coming to the forefront as a consequence of measures for economic development as well as political processes are not devoid of tradition. They tend to be governed largely by the cultural traditions. It is true that the intellectuals are governed on the ideational plane by notions and concepts which they want to adapt from the western societies. But when it comes to the operation and use of these concepts and knowledge, the Indian intellectuals find them-

1 Y. B. DAMLE, "Nature of Industrialization and Urbanization in India," *Young Researcher*, I(2), April 1964.

selves governed by the existing features of the social system. I mentioned in one of my papers that even the Indian intellectuals are governed by the existing features such as age-grades and caste as well as charismatic elements.[2] Naturally, therefore, these elite do not become effective in bringing about the change over from their traditional pattern, but carry on the pattern.

As mentioned earlier there has been, no doubt, a great amount of impact on the ideational plane of foreign pattern of thinking and action. People have been convinced that in order to improve the material conditions and in order to ensure economic development and to have prosperous future it is necessary to resort to systematic planning activity. Planning improves not only economic development but also changes the relationships within the social system. If one finds that even economic development is slowed down by the social-structural features much slower responses can be expected in the realm of change of social relationships, between various strata and layers. There is no doubt that people want to have better material conditions of living. But even the activity which is necessary for achieving such an end is not forthcoming due to social structural features. Some of the important characteristics which contribute to inactivity within the realm of planning and development are i) tradition, ii) vested interests, and iii) charismatic movements which favour structural stability rather than change. People prefer to cast their lot with something or someone which is the way of tradition. This is a matter of common observation even in the realm of voting behaviour of the people in elections which have taken place in India. From many studies of voting behaviour it is established that the voters are very critical of the existing regime both before and after the elections, but never at the time of elections. I think this has a great deal of moral for us to learn from. The indelible truth is that people tend to be governed by tradition rather than by modernity.

III

The discussion above also might seem to emphasize the relative stability of the Indian social system rather than change. However, now I am giving below the elements which are changing too. In general, it might be said that the change in the social system is generated because of stresses and strains as well as structural incongruences etc. Moreover due to the role models available for emulation in terms of contact with other cultures as for example, western societies, an inevitable process of change is being unleashed onto Indian social structure. Then again, the working of economic and political processes also gives rise to change in so far as there is an emphasis on adaptive behaviour or the quest for goal-attainment. Likewise changes can come about even due to the acceptance of new values, ideologies, etc. Earlier we had occasion to mention as to how the intellectual elite, to start with, are exposed to new values, ideologies, etc. Moreover the processes of integration even of the social

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2 Y. B. DAMLE, "Intellectuals and Democracy," *Poona University Social Science Teachers' Seminar*, 1964.

system which goes on in terms of the functioning of economy and polity in particular, necessitates a reallocation of the various functional pre-requisites. Thus if the economy and polity assume the role of greater importance, relatively speaking, than ever before, there is bound to be change in the role played by the pattern-maintenance and integration. Moreover it is very well known that certain items of a social system become disfunctional over a period. Then again the latent functions of a given social institution would also occasion change. To give an instance, one can mention the politicization of caste and its taking upon itself the various activities such as education of its members. It has been mentioned earlier that kinship and family are very important features of social structure in India. Certain studies point out the various stresses and strains which these institutions are subjected to, particularly, in urban and industrialized setup.

Educated persons are subjected to various stresses and strains in this sphere of family and kinship in terms of the widening of their cognitive and evaluative vista. Thus such persons no longer find themselves in tune with earlier models of family and kinship and therefore, want to bring about changes in these institutions, due to what may be called a process of modernization. It is inevitable that there would be role-conflict in the earlier models of family and kinship. This results in remodelling the earlier family and kinship. Of course here we must mention the myth of no-change which is a very important feature of adolescent and youth behaviour .

Many a time it is found that prima facie even the highly educated youth have not changed in their attitudes and relationships so far as they pay obeisance to their parents and elders—by touching their feet, say, after return from abroad etc. What is usually missed, however, is that there has come about a great measure of change in the mental approach, attitude, value-system, etc. All these are implemented by the youth once they are on their own. Thus even though there is a change, the myth of no-change is perpetuated. Some of the studies of adolescents also conform with this trend. At a verbal level the adolescents do not want their parents and elders to feel that they have a different set of values. But they want to have quite a different type of life once they are on their own. Thus some of the adolescents expressed themselves to be against caste restrictions in respect of interpersonal relationships even of an intimate type such as marriage. moreover adolescents expressed themselves against any kind of authoritarianism in the upbringing of children. For instance it is clearly mentioned that when they would grow up and assume parenthood, they would give maximum opportunities to their own children in respect of choice of educational courses, career choice and choice of partners, etc. This should be regarded as a straw in the wind.

Even in respect of caste system which is another important feature of the Indian social structure one has to accept that quite an amount of change has come about in its functioning, particularly, in urban areas in respect of a breakdown of taboos on social intercourse, placement in employment etc. Moreover the measures taken by government to institute scholarships for advanced higher education has in no small way made inroads into the caste system by throwing open opportunities for advancement to all strata irrespective of caste.

It has been observed that locality and neighbourhood play a very important part in determining the loyalties in the Indian social structure. Even in this respect it is to be mentioned that due to the increasing contacts attendant on improved means of communication and transport there is a breakdown of barriers and the consequent widening of contacts. It is increasingly possible now for people from various sub-regions, regions and states to get together and to forge a new type of loyalty which transcends the narrower circles. There is also a kind of change in the sphere of ideology and values.

Earlier it has been mentioned that the elites are exposed to new values, ideologies, etc. The care-taker elite who are at the helm of affairs as far as running of administration and government are, more or less, convinced of the superiority of the new ideologies, values, which is in no small way reflected in the policies of economic planning. Then again the institutionalised social change, say, in terms of measures like eradication of untouchability, doing away with social and economic injustices, etc., is bound to make its impact on the social structure. Dents are bound to be made into the existing social system—thus accelerating the process of social change.

Another programme attendant on economic planning particularly, in respect of community development projects, etc. has emphasized the importance of adaptive pre-requisite. There is a measure of evidence to suggest that people by and large have accepted the adaptive aspect of the programme in so far as they expressed themselves to be in favour of economic prosperity, higher standards of living, etc. There has also been some evidence to suggest that the pre-requisite of goal-attainment has also been increasingly accepted by the people. In certain studies made by the present author he has found that in some of the villages there is a great measure of change in favour of adaptive and goal-attainment pre-requisites as against the pattern-maintenance. Pattern-maintenance is sought to be greatly reduced in its importance. All this is bound to bring about change in the social structure.

In order to look for the direction of change we have to think of pattern-variables as delineated by PARSONS. Thus we have to look for change from affectivity to affective neutrality. We have to find as to how far people are prone to defer gratification. We also have to look for a change from self to collectivity. Thus we have to find as to how far people are agreeable to transcending narrower circles of loyalty. Change from particularism to universalism has to be studied. In this context we have to look for a broadening of cognitive and evaluative vista. We have also to look for change from ascription to achievement. Thus the entire basis of status in society would really change in this case from quality to performance. Then again we have to look for change from difuseness to specificity, whereby the roles become more specific and are guided by considerations of merit, ability, skill, etc. All this really has relational significance. Therefore, we have to really look for change in the employment pattern, interpersonal and intergroup relations as exemplified in various relations purely as personal, occupational, formal, professional, etc.

In so far as there is change from narrower system of loyalties to broadening of such ties we can confidently say that a change has come about. In so far as there is a broadening of employment opportunities and for economic and other progress for all persons irrespective of any considerations such as caste, region, class, stratum, we can definitely say that change has come about. Moreover the process of mobility also works in the direction of change. I have pointed out in one of my papers[3] that there are channels of mobility even within the caste society.

I am giving here a paradigm adapted from PARSONS for application to the analysis of social system in India:

Paradigm for the study of Indian Social System as adapted from PARSONS.

Cultural System	Personality System	Social System
Points of Reference. Cultural Continuity.	Ego Defense, Learning, Adjustment, Deviance, Narcissism, Super-ego. Internalization of norms.	Mechanisms of Social Control Institutions Socialization

Paradigm of Social Structure & Social System

Social System, Functional, Imperatives.			Social Structure Hierarchy of Control.		Motivated Action & its Control. Cognitive, Cathectic & Evaluative.
Expressive Primacy	L	Equil. App.	Values Norms	Uni.	Institutions Relational Regulative Acceptance (Cultural)
	I	Subsys. & other systems.	Collec. Role	Parti.	
Dynamic Possibilities.	A				
	G	Instrumental Primacy			

Evaluative Orientation & Dilemmas of Relational Context.

Affectivity	vs.	Affective Neutrality
Self	vs.	Collectivity
Particularism	vs.	Universalism
Ascription	vs.	Achievement
Diffuseness	vs.	Specificity

The same is explained with special reference to Indian context.

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3 Y. B. DAMLE, "Reference Group Theory with regard to Mobility within Caste," ***Bulletin of the Deccan College Research Institute***, Vol. XXIII.

Cultural System: As for the cultural system we have to consider the philosophy, belief system, etc., in so far as no concrete mechanisms exist for implementing them into interaction on the plane of generality. Thus we might say that the *Advaita* philosophy which is professed by some does not really operate as far as the common mass of people are concerned. Particularly such philosophical beliefs, convictions are not translated into interaction. Then again the beliefs such as those in *Karma* theory or theory of rebirth are also not implemented on the level of inter-action. The same can be said about *Dharma*, in so far as it has not been institutionalized. Then the belief in the equality of human beings which is propounded by certain religious sects is also not implemented on the level of interaction. One might talk of this only as points of reference. The cultural system provides points of reference for guiding one's behaviour, interaction, etc. without providing any mechanisms for its implementation on the plane of interaction. Of course even in this, there is a possibility that certain additions and changes can and do come about, for instance, acceptance of the value of democracy, equality, social justice, etc. from western societies. Such acceptance may give rise to change by presenting different points for referene for guiding behaviour and interaction. Moreover due to mobility there might be a shift from Little Tradition to Great Tradition.[4]

Personality as a System: In India the individual is said to be a role-incumbent in terms of collectivities such as kinship, caste and locality. Here, however, one has to point out the possibilities of deviant behaviour due to increased mobility, spatial, occupational, in terms of strata etc. Moreover reference group behaviour would also give rise to change in role behaviour away from the existing group norms. This provides a focus for a change.

Social System: Caste system has earlier been mentioned as an instance of relational institution. Likewise age-grades also have been mentioned. Family, kinship, have been mentioned as instances of regulative type of social institutions. Theory of rebirth, *Karma* and *Dharma* have been mentioned as instances of cultural institutions. Due to the various measures of economic betterment, legal enactments, etc., the caste as a relational institution has undergone some change. For instance there is a shift in favour of seculiarisation[5]. Changes are also bound to come about in institutions such as family and kinship. Then again due to the exposure to different models of society changes are bound to come about in cultural institutions and usually there is likely to be a diminishing in the impact of the theory of rebirth, *Karma*, *Dharma*, etc. which would in its turn unleash challenge to the caste system.

Functional Pre-requisites: Adaptive process: There is no denying that of late there has been an increasing acceptance of the importance of adaptive pre-requisite by the people at large. People are motivated to improve their lot by effecting change in the methods of production. The political processes at work in terms of functioning of

4 *Ibid.*
5 *Ibid.*

state at Union and state level has also emphasized the importance of goal-attainment, particularly, in favour of goals which are different from the old ones, for example, land legislation, eradication of untouchability, social injustice, etc. The greater the importance to economy and polity, the lesser the importance would be attached to pattern-maintenance as functional pre-requisite. Moreover as far as the integrative pre-requisite is concerned, reordering of economy and polity vis-a-vis pattern-maintenance is bound to bring about change. Likewise contact with other systems, for instance, western society is also bound to bring about change.

Hierarchy of Controls: Values are supposed to be the most stable elements in the social system. Even in this respect one has to mention that there is change on the part of some people, particularly, the elite. Then again there has been some change in the norms of interaction in view of the political and economic measures taken by the state. There is to be reordering of pattern of interaction. Thus in respect of collectivity some change has come about in the sense of its widening and broadening. For example *Varṇa* rather than *Jāti* is stressed. In respect of role also change is inevitable due to all those features mentioned above.[6]

Anomic Breakdown: There is also a possibility of anomic breakdown of the social system due to the increasing incongruence between the personality as a system, cultural system and social system. Such incongruence can be on the plane of values or interaction or both. In certain cases we find that lip-service is paid by role-incumbents to such values, which are flouted in interaction. The large scale hoarding of consumption commodities and black marketing can be cited as an instance of such glaring incongruences. Then again tax evasion as well as fradulent dealings are another instance of such incongruence. In particular, the functioning of anti-social elements as exemplified by *goonda raj* is a pointer in the direction of anomic breakdown.

Pattern-Variables: To look for change we have to be clear about the direction of change. As mentioned earlier if there is a change from affectivity to affective neutrality or from self to collectivity or diffuseness to specificity, or particularism to universalism, or ascription to achievement—for in such cases alone can we talk of the structural change. This opens up a field for statistical and empirical studies, based on solid foundations of theory.

IV

Actually the problem posed earlier, namely, whether or not one is justified in talking in terms of distinctive Indian Sociology has been answered. The distinctive features of Indian social organization such as the theory of *Dharma*, *Karma*, Rebirth, etc. are well incorporated into the scheme presented above for the analysis of Indian social system. The study of Indian social system in the context of culture, personality, and social system enabled us to take cognizance of the theories mentioned above as well

6 For a more detailed discussion, see my papers mentioned in footnotes 1 and 3.

as the philosophical and religious beliefs both when they are institutionalized or not institutionalized. It has been pointed out as to how the uninstitutionalized beliefs and concepts operate only at the level of culture as a system and therefore, only provide points of reference for individuals and groups. Some of the beliefs in so far as they are institutionalized can be adequately discussed while analysing the social institutions such as caste, *Dharma*, in terms of *yuga dharma*, *vyakti dharma*, *jāti dharma*, positional *dharma*, etc. The interplay of religious and secular forces has also been very well analysed in terms of the schema presented. Further, the contention that in India individual's role behaviour is primarily group-based can also be adequately taken care of by emphasizing the importance of collectivity. Moreover the patterns of stability as well as the foci of change have also been analysed in the foregoing analysis. At the outset it was mentioned as to how those who want to stress the distinctive nature of Indian society have merely made statements without providing any kind of theory except in terms of *Dharma*, *Karma*, theory.

As things stand there is no warrant for suggesting that any special theory is needed for studying Indian Sociology. Moreover the burden of proof lies on the shoulders of those who make such claims to provide consistent logical, theoretical framework for such analysis, which has been so far, at least, not forthcoming. Another point which I want to add here is that the major tenor of the discussion above is with reference to Hindus. But it has been pointed out in various studies as to how such major institutions such as caste percolate even to Christianity and Islam. Moreover one can deal with other religious communities in so far as they are urban communities in terms of the processes of secularization.

MUSLIM CASTE IN AN INDIAN TOWN: A CASTE STUDY[1]

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[I]

Introduction:

Anthropology had come to be regarded as a subject studying tribal societies. As the subject developed, Anthropology re-defined itself as a study of all kinds of people in all kinds of social and cultural situations. "Today Anthropology, especially American Anthropology, studies just about everything human" (REDFIELD: 1956: 10). The study of tribal societies ultimately resulted in the development of primitive small society as a conceptual model.

In India, the Anthropologists are no more primarily concerned with the study of tribal cultures. They are in increasing numbers exploiting the possibilities of research in the village communities.

Studies of urban communities from the Anthropological point of view have been very rare. The present study is a modest attempt in that direction. A small Muslim community, the Momins, form a part of the complex society of Sagar in Madhya Pradesh. In main, the preliminary data regarding socio-economic life has been presented. The trends of change have also been assessed.

Perhaps, the greatest amount of sociological literature in India has been written on caste. So far, caste has been regarded as a special feature of the Hindu social organisation. Recently some studies undertaken in Ceylon and North-West Pakistan (LEACH, ed.: 1960) from the Anthropological point of view have thrown a new challenge to the theory of caste. A question, 'as to whether caste is best considered as a cultural or a structural phenomenon', has been posed. An attempt has been made to examine this question.

It is said that the Hindu caste system has influenced the other non-Hindu groups in the sense that rigid caste-like groups have been formed among the non-Hindu groups. In the present work, the comparison is sought between the Hindu castes and the caste-like groups among the Muslims.

How far are the concepts of Sanskritization and Westernization, specially devised to conceptualize the dynamics of Hindu caste system, applicable to the

study of changes in such a small group observing certain forms and features of that system? How far does a group, in spite of the absence of strictness in following the rules of endogamy, traditional association of occupations, and the absence of the concepts of ritual purity and pollution, tend to be a stable caste-like group? The answers to these questions have been attempted in this paper, even if they are not very definitive.

Place of study:

Sagar, where this study has been made, is a town of approximately 80,000 population. The town was founded in 1600 A.D., after the name of the lake, around which it is situated. Sagar is a district headquarter in North Madhya Pradesh. It is an important railway station on Bina-Katni rail route. The city is known for its beautiful lake, bidi industry, the University and the Police Training College.

The People:

According to the census of 1951, the total population of Sagar is 80,068. Sagar town has been the stronghold of Hinduism (HIRALAL: 1922: 14). Yet, the Muslim population is very conspicuous being 20.2 per cent of the total population. No statistics is available about the numerical strength of each muslim group living in Sagar. The Momins are 285 in number divided into 40 families, on the basis of separate hearths.[2] Of these 285 members, 169 are adults, being above the age of 15 years.

Like all other religions, Islam is also divided into various sects, some differing on minor points. Following are the most important sects:

1. Sunnat Jam'aat or traditionalist: They embrace over 70 per cent of the Islam in the theology of the Imams known as (a) Imam Abu-Hanifa, (b) Imam Shafai, (c) Imam Malik and others.

2. The Shias differ from the Sunnat Jam'aat with regard to the succession to the Prophet. The Sunnis recognize Abu-Bakar, who was elected, as the legitimate Khalif after the Prophet, succeeded by Umar, Usman and Ali. But the Shias maintain that the successor to the Prophet should be one like him divinely appointed, sinless and without any blemish or capacity to err; able to interpret and to explain ideas and give correct opinions on questions connected with religion; and that such a man was Ali, the cousin and son-in-law of the Prophet. He was succeeded by his descendents through his wife Fatima,

the respected daughter of the Prophet. They are called Imams and are respected as spiritual heads divinely appointed. These Imams are:

1. Ali, 2. Hasan son of Ali, 3. Hussain son of Ali, 4. Ali son of Hussain, 5. Muhammad son of Ali, 6. Jafar son of Muhammad, 7. Musa son of Jaffar, 8. Ali son of Musa, 9. Muhammad son of Ali, 10. Ali son of Muhammad, 11. Hasan son of Ali, 12. Muhammad son of Hasan.

There are two groups among the Shias, one giving recognition to all these twelve Imamis, while the other recognizing only seven Imamis out of these twelve. The latter group is chiefly found in India and Yemen (South West Arabia). They are known as Bohras and Khojas who recognize His Excellency The Aga Khan, as their spiritual head.

3. Wahabis of Ahle-Hadi: These may be described as the puritans of Islam. This sect was founded by Muhammad son of Abdul Wahab, born in Central Arabia in 1691 A.D. He has tried to revive the simplicity of Islam. He based his reform in interpreting the teachings of Quran with the help of the traditions and private judgments without binding himself to the opinions expounded by the four orthodox Imams. He rejected the veneration paid to the Sufi saints and their tombs, including the most respected shrines of Iraq, Mecca and Madina. Wahabis are more regular in performing prayers and observing fasts. They are mostly found in Central Arabia and also in small numbers in India.

The Muslims all over the world are divided into different groups on the basis of these sects. The Momins are a part of the main sect of Sunni Jam'aat.

The following notes on the different Muslim groups residing in Sagar will give a clear picture of the composition of the Muslim society of this town.

1. Shia: (i) Bohra: This is the only Muslim group of Shia sect living in Sagar. They, mostly do business in hardware, shoes and have shops of general stores.

(ii) Bhatiara: Cook: The services of this group are required at the time of big functions or ceremonies. The ladies observe purdah but not rigidly.

2. Sunni: There are 21 different occupational groups in this sect who are residing in the town.

1. Kazi: This is an educated group of Muslims having knowledge of Muslim religion and laws. Their traditional role has been to mediate and give ruling in the matter of disputes among the Muslims. Before Independence,

the Kazis were living in the separate locality called Kazi Mohalla. After 1947, almost all the Kazi families migrated to Pakistan. At present, there are two Kazi families in Sagar. One family is maintaining a hardware shop, while the head of the other family is a retired District Forest Officer. The group is endogamous and women observe purdah very strictly.

2. Julaha: Momin: Weaver: The traditional occupation of the Julaha is weaving. RUSSEL describes the Julaha in "The Tribes and Castes of Central Provinces of India" (Vol. III, 279) in this fashion: "Julaha, Momin . . . A low Mohammadan caste of weavers resident mainly in Sagar and Burahanpur. In Nagpur district, the Muhammadan weavers generally call themselves Momin, a word meaning 'orthodox'. In Northern India and Bengal, Julahas are very numerous and the bulk of them are probably converted Hindus. . . . The Julahas claim Adam as the founder of their craft, inasmuch as when Satan made him realise his nakedness he taught the art of weaving to his sons. They say that their ancestors came from Arabia. . . . They follow the Mohammadan laws of marriage and inheritance. . . . The Julaha or Momin women observe no purdah and are said to be almost unique among the Mohammadans in this respect." Every point noted by RUSSEL does not seem to have been based on objective facts. Both, men and women do weaving but women do not go to markets to sell the produce. They observe purdah. The Momin is an endogamous group. Out of the 40 families living in Sagar, only four families are following their traditional occupation. The Momins of Sagar also call themselves Ansari and thus want to establish relationship with that group in Arabia which helped Prophet Mahommad in his Hizrat. As a result of this relationship, they think themselves of the second Arab racial stock, called Sheikh, the first being Saiyed, the direct descendents of the Prophet.

3. Rotiwale: Baker: There are very few families of this occupational group living in Sagar. The members of the family follow their traditional occupation. This is an endogamous group and women observe purdah.

4. Manihar: In this group, both men and women sell general goods in the market. Women do not observe purdah. But, the group is strictly endogamous and they have their separate Biradari organization.

5. Rangrez: Dyers: In this group also, both men and women work together in their homes. Women do not observe purdah. However, the group is strictly endogamous.

6. Kachera: Bangle seller: Both men and women go to sell Bangles from door to door. This group is also an endogamous group and the women do not observe purdah.

7. Rangsaaz: Painter and toy-maker: In this group, while men do the painting work, women make toys of clay. Women go to the market to sell the toys and they do not observe purdah. The group is endogamous.

8. Kunjra: Vegetable-sellers: This is a fairly large Muslim group in Sagar. The women sit in the market to sell vegetables. They move from house to house also for selling vegetables. They are endogamous and have Biradari organization.

9. Behna: Carder: This group is numerically stronger than the Momins. In this group, both men and women do the occupational work. Women rarely attend the markets, but they do not observe purdah. This is strictly an endogamous group and has its Biradari organization.

10. Mukeri: Cattle-seller: This is an endogamous group. Women do not go to market with men either to purchase or sell cattle, but they do not observe purdah.

11. Kasaab: Butcher: In this group, women move from door to door to sell meat. In 1947, the Kasaab-mandi was reduced to ashes by rioteers. After 1947, the majority of them either migrated to Pakistan or to other places in India. The remaining people follow their traditional occupation. The women do not observe purdah and the group is endogamous.

12. Nai: Barber: There are only two families of this occupational group among the Sagar Muslims. This is an endogamous group and women observe purdah.

13. Bhishti: Water-carrier: This group generally lends its services to those groups whose status is high, status being measured on the basis of purdah, education and economic position. In every group, water is drawn from the well and carried to their respective homes by women. (Water-taps have recently been introduced in Sagar). In some groups, purdah is very strictly observed and women from such groups do not fetch water. In such cases, the services of the Bhishtis are required. In every locality, there are two or three families of Bhishtis. This is an endogamous group.

14. Tin Saaz: Tin-maker: Originally, this group belongs to Shah or Fakir group. They have left their traditional occupation of taking alms quite a long time back. Women do not observe purdah very strictly. Even now, this group forms a part of the larger group of Shah or Fakir. They maintain inter-group relations.

15. Shah or Fakir: This is a Muslim group, the members of which follow the traditional occupation of taking alms from the people. They have marital ties with the Tin-Saaz. The group has its own Biradari organization.

16. Karigar: Mason: Men do the work of building houses and repairing them. Women do not offer any services but they do not observe purdah either. This is an endogamous group. There are only three families of this occupational group in Sagar.

17. Mirasi: This group provides its services, mainly, at the time of marriage. Men play with instruments while the women sing songs. This is an endogamous group.

18. Tawaif: Prostitute: This is the occupation of women. Women are educated, specially in Urdu which helps them in singing. Tawaifs are called at the time of marriage or such other functions.

19. Hijra: Eunuch: This is a group of male impotent singers and dancers whose services are accepted only at the time of birth. They have their Hijra Biradari. There are two groups among the eunuchs. The Hijra are born impotent and are superior to Khasua who become impotent after birth. This group is the lowest in status.

20. Kutchhi: This is an endogamous group which has emigrated to Sagar from Saurashtra. By occupational status, they are Rangrez or Meman. In Sagar, they deal in bones and hides, and keep shops of general stores. Members of this group are educated and are leaders of the Muslims in Sagar. They speak Gujarati. Women observe purdah rigidly.

On theoretical level of Islam, there are no castes or caste-like groups among the Muslims. There is no hierarchy among the Muslims. All Muslims are equal, according to the religious dictum. But, in reality, we find so many groups among the Muslims. The groups are separated on three grounds, viz., sect, occupations and racial stock. In reality, even the hierarchy among the various Muslim groups is discernible, as in the Hindu castes, to be based on hierarchy of occupations or the status of women and other such criteria.

The study of the Momins as a part of the larger community of Muslims is only possible after studying the various bases of classification. In India, the Muslims are classified into four ethnic groups in accordance with the groups which invaded the country.

Coming of Muslims in India:

From the dawn of history, India has been repeatedly invaded by outsiders in search of new dominions. Some left little mark either on the country or on its inhabitants; others were ultimately absorbed into the Hindu fold and the Hindu polity.

In the seventh century after Christ, the new militant religion of Muhammad arose in Arabia, which, in the fullness of time, set in motion a fresh series of invasions into India. Some of these were mere raids in search of slaves and plunder; others were directed to the conquest of fresh territories; many resulted in the permanent settlement of numerous foreigners. They introduced new races, a new civilization, and a new religion into India, and consequently produced important changes, both in the composition of the Indian people, and in their social system. Though it is unnecessary to narrate the story of successive kings and successive conquests, some historical account is required to analyse the changes.

The Arab armies which invaded India in the seventh and eighth centuries could not convert many people to Islam. All subsequent invasions of India by the Mohamadans came from the northwest and this fact explains the prominence of Persian, Afgan and Arab blood among the Muslims of India today. The invasions by Gaznis, Sultan Mahmud, beginning with the tenth century continued till the end of the thirteenth century, and the rule lasted till the middle of the sixteenth century, after which the Mughals captured the country. These were interrupted by the Afgan invasions of Nadir Shah and Ahmadshah Abdali in the eighteenth century. The mass conversions towards Islam were made possible by slave system and intermarriage. Some of the Muslim rulers fused their Islamic doctrine with Indian culture and philosophy and evolved a new line of advance, which brought in hundreds and thousands of non-Muslims especially of the depressed orders, whose social status was such that they looked on the new faith as a great blessing.

Important causes for the spread of Islam in India:

1. The prevalent caste system which though organised with the best of intentions, had degenerated and had become unbearable to the low castes. By adopting Islam, a member of the lowest caste became entitled to equal status with those of the ruling class.

2. Economic conditions of the masses.

3. Ignorance of their religion on the part of the masses.

4. Occasional persecution of the non-Muslims by Muslim Maulvis, nobles, generals and rulers.

5. Granting of appointments and offices or the remission of punishments.

6. Missionary activities on the part of the Sufi thinkers.

The descendents of the original invaders are now grouped into four major divisions—Moghul, Pathan, Saiyad and Shaikh. All the Muslim groups in India try to fit themselves in this four-fold division. The Moghuls in Uttar Pradesh are found to be of real Mongolian race. But the term is used in broader sense. The Pathans in India are those who possess Afgan racial characteristics. The groups who claim to be of Afgan stock can be either Saiyad or Shaikh. Those who claim descent from the Prophet through his daughter, Fatima, and Ali, are called Saiyad, an Arab title which means 'Prince'. The others are known as Shaikhs meaning 'Chief'. The Saiyads being the direct descendents of Prophet are certainly regarded as superior by the other groups. The Saiyads and the Shaikhs are again divided into many subgroups.

Thus, the Momins are Sunni by faith, weavers by occupation and Shaikh by lineal and ethnic relationship. All the Muslim groups in India can be divided on such bases. Such classifications may throw light on the caste being a cultural or a structural concept.

Emigration and role of Muslims:

Sagar as an administrative and military centre attracted the Muslims to come here. All Muslims in the town are found busy with one or the other kind of trade. The favourable climate of Sagar attracted the Momins. Formerly, Sagar was a cotton-producing area. There was ample reason for the Julahas to be attracted by a new town, to satisfy the needs of the people and especially of the military people. The Momins of Sagar have come from Mahoba and Konch in Baghelkhand. Their settlement in Machharyai ward of the town seems to be a well-planned settlement being near to the lake, the fort, the market and the cotton-fields.

The Muslims in general and the Momins in particular have played a significant role in the development of the town. They have been pioneers in opening the shops of footware, hardware and in establishing the Bidi factory. Some of them built big mosques in the town.

A single investigator cannot study the complex society of Sagar from the Anthropological point of view. However, it is relevant to study the Momins as

an isolated community. The study can be called relevant if the Momins are viewed as a functioning part of the multi-group society of Sagar in general and the Muslim society in particular.

The 'We Muslim' feeling does bring together Muslims not only of the town but probably of a much wider area. But, every small Muslim group maintains its separate identity which is discernible in its socio-economic life. The influence of the Pan-Indian civilization on the maintenance of its own culture by every group, cannot be underrated.

[II]

ECONOMIC LIFE

It is said that culture is integrated. Many theories have been propounded to account for the integration of culture. Whatever may be their content, on one point they seem to agree, and the unity and integrative nature of culture is not questioned. Different aspects of life of a particular society are interrelated and they are of equal significance for the integration of life.

The economic aspect of life is much important in the sense that changes in it have wider repercussions on the other aspects of life. The economic activities play a significant role in the life of any community. They influence the pattern of life, standard of living and the status of people. The economic status of a particular community may affect the general status of that community in the larger world.

The Muslims can be stratified on the basis of occupations as are the Hindus divided on the basis of pollution and purity. The division of the Muslims according to different occupations practised by separate groups is purely an Indian phenomenon.

In Arabia, the Muslim community is not divided on the basis of occupations. There is neither hierarchy in occupations nor any occupation is supposed defiling. Even the sweepers after finishing their duties can sit and dine with the other Muslims. This is possible in India only theoretically. But in practice, the effect of the Hindu caste system has been so great that the status of the converts has not changed appreciably in spite of the change in faith, due to the pursuit of the same occupations which are hierarchically graded in the Hindu system.

Weaving is the traditional occupation of the Momins. It is said that Adam taught this art to one of his sons. Out of the total of 40 families, 32 families re-

side in Machharyei mohalla surrounded by the bidi factories, while 6 families live at Chakraghat, one each in Gopalganj and Shukrawari.

Age distribution of the Momins, according to sex:—

Momins: 40 families Total Population: 285

Total Number of males:		138	285
Total Number of females:		147	
Age groups —	1-14 years:	116	285
	15 yrs. & above:	169	
Males —	1-14 yrs. :	55	285
	15 yrs. & above :	83	
Females —	1-14 yrs. :	61	
	15 yrs. & above :	86	

At present, only 4 families out of the total 40 families are following the traditional calling as subsidiary occupation, their main occupation being bidi-making. The remaining 36 families depend either entirely upon bidi-making or keeping the shops. About 90% of the Momins eke out their living from bidi-manufacture.

VOCATIONAL DISTRIBUTION OF THE MOMINS

S. No.	Main occupation	Subsidiary occupation	No. of families	Dependent People
1	Bidi-making	Weaving (Traditional Occupation)	4	25
2	Bidi-making	Nil	15	113
3	Bidi-industrialist	Nil	2	15
4	Bidi-worker	Bidi-making	6	45
5	Merchants	Nil	5	36
6	Merchants	Bidi-making	3	20
7	Service (Teacher)	Bidi-making	3	10
8	Transport (Motor truck)	Bidi-making	1	18
9	Physician (Hakeem)	Bidi-tobacco selling	1	3
	Nine Main Occupations	Three Subsidiary Occupations	40 families	285

The Momins of Sagar have left the traditional occupation long ago. The four families who still pursue weaving do it in leisure time and weave only towels or rough cloth. Their main occupation is bidi-making and weaving is a subsidiary pastime. The two families which are bidi-industrialists provide work to the bidi-making brethren. Bidi-making is a good example of the division of labour based on age. Boys and girls of younger age help their parents in this occupation. They bring 'zarda' (tobacco) and 'patti' (bidi-leaves) from the factory. They help to give a specific shape to the leaves. Again, they take the prepared bidis to the factory. The bidi-makers are paid in proposition to the number of bidis prepared. Generally they are paid Rs. 1.31p. per 1000 bidis. Every adult in a family prepares about 700 to 1200 bidis each day. Thus the average income of the adult is about Rs. 1.25p. per day.

Six families constitute the bidi-making class. The male members work in bidi-factories on different posts, such as that of the munim, bidi-sorter or bidi-manager. They get about Rs. 50/- to Rs. 60/- per month. To augment this income, the women make bidis in their homes.

There are five families which belong to the merchant community and keep shoe-shops. They earn about Rs. 200 to Rs. 500 per month.

Three families get their bread by pursuing teaching profession. Higher education is absent among the Momins, but for a few exceptions. Generally, people get knowledge of Urdu and Arabic. The persons who have sufficient qualifications to teach, work as teachers in the Urdu Primary Schools. Their salary is about Rs. 60/- p.m. One Momin owns a truck and leads his family by hiring it to others for transporting goods. Another is physician while his brother is a tobacco-seller.

Sagar district, formerly having been famous for cotton-production attracted the Muslim weavers to this area. Sagar has also been a military centre and thus a good cloth consuming place. The Muslim weavers, called Julaha, settled at Rehli Banda, Rohatgarh, Shahgarh and Sagar, in this district. Chanderi is not far from Sagar where the Julahas weave the famous Chanderi sarees.

The Julahas mostly emigrated from U.P.—Kalpi, Orai, Moradabad, Bijnore, Itawah. On investigating the reasons for emigration, it was told that people came here either to find suitable jobs or just travelled out of their houses due to family disputes. Once it was discovered that the place was suitable, others followed them.

Machharyai, the locality of the biggest concentration of the Momins, is near Sagar lake. This mohalla is surrounded by the lake, the plain fields and

the hillocks on all the sides. A big stream, called Monga is the dividing line between the habitation and the fields. Cotton has been the chief crop from these fields. Sagar lake and the stream served their need of water for weaving. Two other Muslim occupational groups—Rangrez (Dyers) and Manihar (who sell general things like needles and yarn)—who have close connection with the craft of weaving, also live in this locality.

The Momins left their traditional calling about 30 years ago. The popularization of mill-cloth hit them very hard. The cheap and superior mill-cloth was at once accepted by the people all over the country, forcing the Hindu and Muslim weavers to give up their craft. Cotton-production also stopped in this area. The inferior quality of cotton could not find market. Moreover, there was no cotton-textile factory in the neighbourhood and the transport facilities were very poor and costly, to send the cotton to distant places.

Thus the Momins were forced to select different occupations. All the occupations in the egalitarian Islam have equal status. But in practice, the traditions, privilege and shame do evolve a ranking order for different occupations and thus limit the choice. So, the Momins selected only those occupations which were suitable to their existing status in the Muslim community of Sagar. They rejected vegetable-selling (occupation of the Kunjra) or butchery (occupation of the Kasaabs) because of their low status in the hierarchy. When a question was put to a cloth merchant, as to why he did not select vegetable-selling as his occupation, he at once replied that vegetable selling was a low occupation, an occupation of the Kunjras. Thus the compatibility and incompatibility of traditional occupational status which may be called the caste-status, is to be taken into account while selecting a new occupational status. Chowdhary M., a bidi-maker and Chaudhary of the Momin biradari did not choose any other profession because he is not educated and he does not have money to invest in business.

Bidi-making has been adopted by most of the Momins in spite of its being considered a low occupation. There are some valid reasons for its adoption. 1) One of the Momins established bidi-industry in the locality. 2) This is the only profession in which men, women and even children can earn something without requiring any specific skill. 3) People can do the work in their own locality and in their homes. 4) Majority of the people of the area are following this trade. Thus, the idea of shame is not very much involved in this occupation, it being followed in their respective homes for the factory owned by a respectable Momin. In spite of all these factors favouring the acceptance of bidi-making as an occupation, many people tried to conceal from the investigator

the fact that womenfolk in their families prepared bidis. This clearly indicates that the status-consciousness has not been completely shrudded off even now.

The new occupations taken up by different people have divided the community on the basis of the standard of living and have consequently graded the community into various classes. A social group is always stratified in status-groups on the basis of the economic position of the individuals or the families. But now, the Momins are stratified in various status groups on the basis of occupational status.

STATUS-STRATIFICATION OF THE MOMINS ON THE BASIS OF ECONOMIC POSITION AND OCCUPATIONS

Degree of status	*Occupation*	*Total No. of families*	*Population*
High status Higher Standard of Living	Bidi-industrialist, Shop Keepers, Physicians	8	54
Medium Status Medium Standard of Living	Bidi-workers, Transport, Service Class	10	73
Low Status Low Standard of Living	Bidi-makers, Petty-shopkeeping	22	158
			285

Eight families are high in status in the sense that their standard of living is high and that they are consulted by others in every matter. The bidi-industrialist is a very rich man. Among the shop-keepers of high status, the shoe-shops are popular. They have much property and they occupy important posts in various institutions of the Muslims. The members of these families are more educated. The standard of living of these families is very high. They own cars, motor-trucks, radio-sets and new types of well-furnished bungalows.

Bidi-workers such as Munims and bidi-managers, and teachers or motor-truck owners are little educated. Their income is much higher as compared to

the persons who prepare bidis. Among these families, only two families own radio-sets and cycles. Seven families own houses built by their forefathers. Three families live in rented houses. Sri B. is a young man and owns a large house. He works as a bidi-patti-contractor in the bidi factory. On being asked as to how he was doing, he replied that he was doing well, but it was not possible to add to the property. He has a plan of starting a small bidi-factory which he thinks is profitable to run.

The remaining 22 families consisting of 158 members have low status. They are all bidi-makers except the members of the seven families. Four families out of these seven also pursue the traditional occupation of weaving as a a subsidiary pastime. Three families own small shops of cloth and keep hotel. Their income helps them to have hand-to-mouth existence. All these families live in rented houses. They do not use electricity. Very few families own bicycles. The people are illiterate. All the members of the family work. Even children help their parents in making bidis.

Food-habits have correlation with the standard of living of the people. Diet in past as reported by elderly people consisted of thick cakes of jwar and bajra, thin cakes of wheat, maheri of rice, dhubri of mahua, jau-ki-roti, beef, mutton, pulses and vegetables. Milk, curd and butter-milk were substitutes for modern tea. At present, jwar, bajra, chana, mahuan-ki-dhubri or maheri are not included in their daily diet. The difference between the food-habits of the people of high status and low status lies in the quality and quantity of the items of diet. Among people of low status can rarely afford non-vegetarian food. They may depend only on one vegetable while the rich people can afford varieties. People of high status always invite other people to dine with them.

The same is the case with house-types. Generally, there are single-storeyed houses constructed of clay and stone-pieces. There is one Dalan on verandah and adjoining to it is a large room which houses the Kargha, an important implement for weaving. Below this hall is the courtyard. On one side of the courtyard is the kitchen while on the other side is the latrine. A big stone for bathing purposes is placed in a corner of the courtyard. In a house having sufficient accommodation, the members of the family sleep in different rooms; otherwise the big hall is used as a dormitory also. The rich persons own double-storeyed 'pakka' houses. In such houses, there are separate rooms for independent purposes. The house-owners among the Momins are high status and medium status people, while the low status people live in rented houses.

DRESS: The dress-patterns are an indication of the economic status of the people. The old dress of men consisted of saraie, a typical trouser, lungi or

Tahband, shirt, waist coat or a coat with closed collar. The head-dress was either cap, kulla or safa (turban). Leather-shoes of old type were the footwear.

Now-a-days, they wear pyjama, shirt and coat of modern fashion. They put on the cap of ordinary cloth or velvet and wear shoes of different shapes.

The old dress of the women comprised of a chudidar type kurta, and dupatta. Chadars were used in place of the Nakab. Women did not use shoes, generally. But these days, they have the following set of clothes:—

1. Shalwar, jumpher or Uraibi frock and dupatta
2. Sari, blouse, Petty-coats and brassiers
3. Chudidar pyjama, jumpher or frock and dupatta
4. Garana, jumpher and dupatta.

These days, only old women are found wearing the chudidar pyjama while there are very few women who wear sarees. The saree is not regarded as a modest dress as it does not conceal some of the parts of the body. Garara and shalwar are very common with the women, these days. Dress-patterns are linked with the standard of living of the people in the sense that rich people have more of clothes having different varieties and shades. The cloth is also of a superior quality. The poor possess only a few clothes of inferior quality.

The same is the case with the ornaments of women. The old ornaments of women were:—

1. for hair : Jhoomar and Sankal
2. for ears : Bali and Patter on the upper side, Jhumkey in the lower portion with Karnaphool
3. for hair tail : Choti
4. for nose : Long, Nath and Bullak
5. for neck: Hanshi, Tonk, Chandan-har, Tidana, Thushi.
6. on arms : Bazuband, Joshan
7. on wrist : Kadey, Churi, Bataney, Channi, Parichham, Phunchi, Kangan, Gajaria
8. for thumbs : Arsi in one, while Gustana in the other thumb
9. for the fingers : Six chhalleys in the fingers except the middle one.
10. for the legs : Kade, Chhel-churi, Chadey
11. for the toes : Challey and Mehndi

Present day ornaments are:—

1. for hair : Teaka or Benda
2. for nose : Long, Besar or Nath, Earon, Tops, Jhumki
3. for neck : Guluband, Tidana, Necklaces, Haar, Champakali
4. on arms : No ornament.
5. for wrist : Ghadi Churi, Kangan, Dast-band, Phunchi
6. for the fingers : Anguthi
7. for the legs : Lacchay, Jhanjhen, Peri, Puizeb, Chhelchuri
8. for the toes : Chutkiyan and Challeys

The ornaments of the past were generally made of silver except Tidana, Thushi, Nath, Jhoomer and Aarsi which were made of gold.

The ornaments of the present day are generally made of gold except the ornaments of the legs which are made of silver. The ornaments for the upper portions of the body are made of gold while those prepared for the lower portions of the body are made of silver.

Rolled gold ornaments are also liked by the poor, being cheap and having new designs.

The relations of the Momins with other Muslim groups is very cordial. Though the relationship cannot be compared with the classical Jajmani system prevalent in Indian villages, it certainly is the same in spirit. In a town, all the Muslim groups offer services to each other. Especially, the services of low-occupational-groups are availed of by the high-occupational-groups. The payment are of course in cash, unlike in villages. The services of the low Hindu castes are also called for but generally the Muslims are preferred.

Thus, in the field of economic life, the Momins cannot be isolated from the other Muslim and non-Muslim groups living in the town. These days, as also in villages, due to changes in traditional occupations and the increasing importance of cash economy, such a web of unity is shattering. So, in this respect also, the Muslim groups of Sagar may be compared with the Hindu castes making allowance for the fact that both these communities live in a town.

III

ANALYSIS

It is often remarked that the Hindu Caste-system has influenced other non-Hindu groups and has found a place for them on the rungs of its hierarchical ladder. The relative positions of non-Hindu groups in caste-hierarchy differ from one region to another. Going further, it may be said that the non-Hindu groups themselves are divided into various caste-like groups. According to Max WEBER, "There are also castes among the Mohammedans of India . . . castes are also found among the Buddhists." (GERTH and MILLS : 1947:396 as cited in LEACH: 1960:2)

How far can a Muslim group be compared to a Hindu caste? If caste-like groups are discernible among the non-Hindu communities, what do we mean by caste? Is caste a cultural or a structural phenomenon? Answers to some of these questions have been attempted here in reference to a small community in a town.

Sagar, the place of study, has always remained a town of importance, being the seat of administration of many feudal chiefs. It has also been an important military centre. The area was, formerly, famous for its cotton-production. The Julahas (Muslim weavers), finding this area suitable for their occupation, emigrated from outside. With the development of the town, other Muslim occupational groups also settled here. The Muslim occupational groups and the Hindu castes maintained the self-sufficiency and integration of town-life to a great extent, by following their traditional callings.

The Julahas (or the Momins) had to give up their traditional occupation of weaving about 30 years ago, due to popularization of mill-cloth. The cheap and superior mill-cloth was at once accepted by the people all over the country. As a result, it became obligatory for the Momins to select new occupations. Only those occupations were chosen which did not involve the degradation of their existing status in the society

Ideally, all the occupations in the egalitarian Islam have equal status. In practice, however, the traditions, privileges and shame do evolve a ranking order for different occupations.

The Momins rejected such occupations as vegetable-selling (the occupation of the Kunjras) or butchery (the occupation of the Kasaabs), regarded as low in the occupational hierarchy. The work of bidi-making has been accepted due to certain local factors.

1. One of the Momins established bidi industry in the residential locality.

2. The work is economically gainful as there is scope for all the members of the family to earn something.

3. People can work in this industry without going out of their homes and the locality.

4. The majority of the people in the area have accepted this trade. Even the Brahmans prepare bidis in the rural area.

Thus, the false notions about one's dignity are not involved much.

A social group may always be stratified into various classes on the basis of the economic position of the individual or the family. But, now, a new basis of classification has developed in the Momin community. A bidi-making Momin is not low in status only on account of his financial conditions, but probably because, his new occupation is not respectable.

Hindu castes and the Muslim occupational groups may be compared in their economic aspects. Hindu castes are traditionally associated with certain occupations which are hierarchically graded on the basis of ritual purity and pollution. In Islam, ideal ritual equality is prescribed among different occupations. However, in reality, the occupations are hierarchically graded. The occupations which are basic for the continuance of life are ranked higher. The work of teaching and interpretation of religious codes is certainly ranked the highest, being sacred. Cloth being one of the basic needs of man, the weavers are given high status among the Muslim occupational groups. Other factors may also decide the rank, but those factors will be dealt with elsewhere. Similarly, vegetable-growing is an important work but not vegetable-selling (the occupation of the Kunjras) to the same extent.

Like the Hindu castes, the fields from which a Julaha may select new occupations are limited. Among the Hindus, even after the selection of a new occupation, the difference between caste-status and new occupational status is clearly understood. Similarly, if a Muslim weaver starts working as a carpenter, he is even then known as a Momin. So, the traditional occupational status, which may be called the caste-status, can clearly be differentiated from the new occupational status.

The intercaste relations among the Hindus are not clearly marked in urban areas as compared to the rural side. However, inter-caste relations in the economic setting among the Muslims do exist in the town. The co-operation among the groups help the continuance of the Muslim way of life. A Muslim barber never

refuses to offer his services for circumcision. With greater urbanization, the relations among various groups, no doubt, have loosened, as also among the Hindus.

In the sphere of social life, various units of social organization have undergone changes of different order. The important functions of the family, viz. the socialization and social control have not registered any change. A Momin girl is rebuked, even these days, for peeping out of the purdah or for uttering bad words. She is told not to behave like a Kunjra in such matters. The breakdown of the joint family due to the quarrels among womenfolk and feuds over the division of property are not a recent phenomenon. The role of Khandan or the lineage in the social life of the community has not changed appreciably. Industrialization and growing urbanization have however affected the depth of relations.

The ties of biradari organization have become very loose. The biradari organisation owed its importance and effectiveness to the following of the same occupation by all the members. With the breakdown of traditional occupation, the organization has lost its significance and effectivity to a great extent. However, matters relating to divorce and family feuds are even now formally decided by the biradari.

The Chaudhari of the biradari organization has also lost his control over the members. The formal office of Chaudhari is hereditary as in the traditional Hindu Panchayats. These days, the Chaudhary, whose financial condition is poor, plays in the hands of the rich. His position has been reduced considerably and now, he merely informs the members of the biradari to attend the meeting. New leaders are coming up among the Momins.

Richness, pilgrimages, education and association with political parties and other elites of the town are some of the qualifications of the new leadership.

The status of women is showing signs of change. Men and women have equal rights, according to Islam, though the superiority of man has always been recognised. At present, due to the earning capacity of women in the bidi-making class, the superiority of men has been challenged. Men have resigned themselves accordingly with the pretext that they are practising the dictates of Islam. The purdah system has not undergone any change. Due to lack of education among the women, it maintained its rigidity. The purdah system provides another criterion for the hierarchical ranking of the Muslim groups. The Kasaab and the Kunjra are ranked lower in hierarchy due to the absence of the purdah system among them.

The ceremonies in the life cycle of an individual have not registered appreciable change. However, some of the rituals which are thought useless or not in keeping with the religious scriptures are being dropped out. The ceremony of presenting 'Kurta-topi' to a newly born child is being disapproved in the community. People do not want to go against the dictates of the religion only to quarrel with each other. If Kurta-topi is presented to one family, it becomes obligatory for that family to present such things in return. The economic condition of that family may obstruct them from presenting things in return, and this may result in quarrels.

It is reported that formerly, before circumcision, the boy was made to sit on an earthen pot. This practice has also been abandoned.

In marriages, such practices as singing or dancing during the whole night are being abandoned. The unnecessary harassment of the other party for squeezing money or applying mehndi or Ubtana are also strictly disapproved. In the marriage of a Momin, recently performed, all these unnecessary practices, not prescribed in the Muslim religion, did not find place in spite of the fact that they could financially afford such things as singing and dancing.

Marriages in other groups are not practised. Ideally, there should be no separate groups hierarchically graded and there should be no endogamy. However, in reality, group endogamy is practised rigidly, though its basis is not religious as among the Hindus. Endogamy is practised among the Muslims to maintain the cultural specialities of each group. A Momin would not marry a Kunjra girl, because women among the Kunjras keep shops in the market, utter abuses every now and then and come into contact with hundreds of men. However, hypergamy is not completely ruled out. Recently there have been two cases of hypergamy. Th permission was to be sought from biradari for such hypergamous unions. The Kunjras and the Kasaabs follow rules of endogamy very rigidly. The defaulter is excommunicated.

Many practices associated with death are also being disapproved. It is regarded as useless to use more cloth for the coffin than actually required. The use of flowers and scents is also considered useless. The ceremonial mourning on the 3rd, 10th, 20th and 40th day after death is also strongly disapproved.

Similarly, restrictions are being imposed on the manner of the celebration of festivals. The celebration of the Urs of the local 'Peers' is strongly being resented by the Momins. The offerings of chaddar etc. in the mazars of the Peer is not liked by the Momins. The processions of the models of Hussain's tomb (Tajiye) in Moharram or coming in trance is regarded as a deviation from the

religious dictums. The practice of asking the Peers to fulfil the wishes in lieu of a chhaddar or some rupees is strongly disapproved. This type of bargaining is now being looked down upon by the community members.

Like the Hindus, there are definite commensal relations among the Muslims. A Momin would not visit a Kunjra or a Kasaab for dinner nor he would invite him. However, inter-dining is permitted in large gatherings where the food is cooked by the Bhatiara—the traditional cook.

Among the Muslims, ritual pollution, which derives from body processes such as elimination, menstruation, sexual intercourse and death, applies equally to all. Hence it is possible to develop ritual hierarchy in an Islamic framework.

The trends of changes in various spheres of life cannot be examined as isolated facts. It appears that these trends merge to form a single comprehensive system which may explain the direction of these changes.

All the examples of recent disapprovals of unnecessary and wasteful practices, cited before, clearly indicate that the Momins have started paying close attention to the rigid following of the Islam. It follows that the Momins are giving up all those practices which are not prescribed in the true religion. It seems that the Momins are trying to follow an ideal way of life as mentioned in the Holy Quran and the Hadis.

What is this ideal way of life? Does any group keep to it? Why are the Momins trying to attain that ideal? An elderly Momin's views about giving up certain customs automatically answer these questions. He has performed 'Haj' thrice and from his personal experience, he said: "In Arabia, such petty customs are not observed. It is sheer waste of time and money. In no religious book, references are given rgarding the observance of such customs. Muslim religion originated in Arabia and from there it spread all over the world. The Arabs are the true followers of Islam. They understand better the Quran and other religious books as they are written in their mother-tongue. Hence, in order to follow the true religion, the Momins should follow the Arab way of life."

These views clarify the stand of the Momins regarding the acceptance of those customs which are prescribed in Islam, and the rejection of the locally developed customs. This process may be called Arabianization.

What is the process of Arabianization? How to follow the Arab way of life?

There are two approaches to the Arab way.

The important steps include keeping a beard, offering prayers five times in a day and wearing the trousers (pyjama)—up to the ankles. The growing of beard is associated with the fact that Prophet Mohammad had a beard. Prescription for wearing the trousers upto the ankles has valid reasons. Formerly, it was customary for Kings and Emperors to wear long clothes which were required to be lifted by the servants to save them from brushing the ground. As a result, long clothes, reaching the ground, became a wasteful fashion of aristocracy. The Momins being the weavers themselves easily fell prey to this fashion. To save this wastage, the Prophet advised men to wear trousers upto the ankles. At present, the Momins wearing trousers below the ankles are not viewed with esteem.

The negative steps involve abandoning of many locally developed customs. Probably, these customs developed due to the influence of non-Muslim groups. Some of the more important customs given up include:—

i) At the time of birth, it was customary for relations to present clothes to the child. This custom is now given up as it is not prescribed in Islam. Giving and taking presents may lead to quarrels.

ii) At the time of circumcision, it is not necessary to ask the boy to sit on an earthen-pot, as was practised formerly. The custom has no meaning.

iii) Marriages should be performed in simple fashion. There is no need of singing throughout the whole night, beating the drums or taking money from the bridegroom by playing such tricks as hiding the shoes. Applying 'Mehndi' or 'Ubatan' is not favoured.

iv) At the time of death, more cloth is not needed than what is necessary for the coffin. Flowers, scents and incense-burning is unnecessary. People should pray God for the peace of the deceased's soul. There is no need to celebrate the mourning on 3rd, 10th, 20th and 40th day after the death of a person.

v) The celebrations of the Urs are very much resented. Asking the 'Peers' to fulfil the wishes by offering them chaddar etc. is nothing short of bargaining. Then, it also resembles idol-worship. Such things are against the spirit of Islam. In Moharram, the replica of the tomb of Hussain is ceremonially paraded through the streets of the town, and some persons get into trance. This practice is against the dictates of Islam which do not prescribe idol-worship in any form.

All these positive and negative steps taken by the Momins, in order to copy the Arab way of life, indicate these ideal features of Arab culture.

1) That the rituals should be simple. There should be no delusions.

2) That there should be no idol-worship in any form.

Arabs believe in the three basic principles of Islam, and every Muslim is supposed to believe in these fundamentals:—

1) Belief in Allah, one God.

2) Belief in the day of judgement—Kayamat. This eventually calls for the belief in hell and heaven, and 'Saja' and 'Jija'.

3) Belief in virtuous deeds.

Like the Arabs, every Muslim should:

1) Recite Kalima—Belief in Allah and his Prophet, Mohammad. Those, who have no faith in these beliefs, are not true Muslims.

2) Offer prayers five times a day.

3) Undertake 30 days' fast of Ramzan.

4) Give Zakat i.e. a part of his property to the poor. The poor relatives have a preference in accepting the legal alms.

5) Perform Haj, i.e. pilgrimage to Mecca to be undertaken at least once in the life-time.

The Momins of Sagar hold these patterns as the model to follow.

The customs which are being given up by the Momins must have developed due to the influence of Hinduism. The Hindu practices like idol-worship in every form, multiplicity of unnecessary rituals, demanding fulfilments of desires and offering something to the God in return must have developed similar practices among the Muslims. These practices form a part of the popular Islam, which is being advocated to be given up in the process of Arabianization.

The trend towards Arabianization can be traced back to only eight or ten years. Many reasons are involved in the beginning of this process in Sagar and probably in the whole country. The other relevant and affiliated problems are also important.

Is the process of Arabianization limited only to the Momins or to the other Muslim groups also? If it is present in the other Muslim groups, what are the differences?

There has always been resentment among the religious leaders regarding the practices locally developed. But the general Muslim population did not pay heed to the preachings of those leaders. During the riots of 1947, all the Muslims of Sagar had to flee to Bhopal. They had to undergo many hardships during that period. After the restoration of peace, the Maulvis reproached the general public for not following the Islam, rigidly. According to the Maulvis, the people received the fruits of their deeds. "They did not follow the principles of Islam and they were punished." This theory was accepted by the people. As a result, many people advanced steps for the purification of Islam by rejecting the popular Islam.

The other reasoning also appealed to the general public. They thought that formerly there were Muslim empires in many countries of the world because religion was being strictly followed by all the people. With the observance of popular Islamic practices, the true religion became weak resulting in the destruction of those empires. The Muslims naturally felt that they could unite again only through the medium of the Islam.

These were the two important reasons for the beginning of Arabinization in India. Maulvis on an all India basis convened conferences and started an all-out effort to revive the true religion as advocated by Prophet Mohammad.

In Sagar, of all the Muslim groups, the Momins came forward to Arabinize their customs and rituals. The Momins took a lead in order to raise their status. The group of Momins has always been successful in raising their status.

The Momins by their traditional occupation are the Julahas or the weavers. Adam taught the art of weaving to one of his sons. Due to this history, the Julahas attained good status in the society. The word Momin denotes the meaning—true Muslim, and pious. All Muslims who are honest and have faith in the principles of Islam and behave properly may be called Momins. But, here the word has a special connotation. When Prophet Mohammad escaped through the siege of his enemies and fled from Mecca to Madina, he was helped by the Julahas. This migration from Mecca to Madina is called 'Hijrat'. Prophet Mohammad addressed the Julahas, as Momins i.e. true Muslims. As a result, all the Julahas in the world call themselves Momins. Recently, many Momins have started calling themselves, Ansari. Ayub, who helped Prophet Mohammad at Madina was called Ansar—meaning a good assistant. Mostly, the educated Momins have started calling themselves Ansari. Ayub Ansari belonged to the Shaikh ethnic group and thus all the Momins started associating themselves with the Shaikhs (respectable persons). In this fashion, the Momins

raised their status considerably. The Momins maintained their high status by adopting such practices as the purdah system.

About 30 years ago, the Momins were forced to give up their traditional work. In the selection of new occupations, the majority of the Momins had to accept low occupations like bidi-making. This affected their traditional high status. The financial position also became poor. To regain the high status, they started Arabianizing their customs and rituals. The propagation of Arabianization by the Maulvis came as a boon to the Momins. They started keeping beards and are giving up practices of popular Islam.

The practising of local customs require good finances, as compared to practising the simple rituals of true Islam. The acceptance of Arabian Islam has helped to solve this problem in addition to getting high status.

The other Muslim groups are also trying to follow the Momins, but their pace of development is comparatively slow. These groups did not leave their traditional callings and as a result, their status-positions were not affected. It is not practically possible for certain groups to follow the Arabian way of life. The Kunjra women can never observe purdah as they have to sit in the shops for vegetable—selling. Similarly, the Kasaab cannot offer prayers, five times a day, as his hands are mostly covered with flesh and blood; for offering prayers, it is necessary to be physically clean.

Thus, the Momins of Sagar have taken lead in starting the process of Arabianization. It is doubtful as to how far a single group can follow the Arabian way of life. Can there be total Arabianization? What would happen to the rigid, caste-like status—stratification, based on occupational hierarchy? At this point, it is not possible to answer these questions. Perhaps, more ethnographic data may be able to throw some light. So far as the Momins are concerned, Arabianization may be compared to its counterpart in the Hindu society—Sanskritization. If Sanskritization does not appreciably help an untouchable caste to raise its status, Arabianization also cannot help appreciably a low caste to raise its status. A Tawaif (prostitute) even after performing 'Haj' pilgrimiage failed to gain higher status in the society of Sagar.

Three types of leaders are propagating Arabianization of the existing Muslim customs and rituals, in Sagar.

1) The persons who have performed 'Haj' and have observed the Arabic way of life profess the following of true Islam.

2) The Maulvis, who are well-versed in religious matters also profess the Arabic way of life as the ideal to be followed.

3) Rich persons are also interested in the reform of Indian Islam on the

models of Arabian Islam. Deviation from the way of life of lower groups raise their existing status. The status of an individual considerably goes up if he does not spend money, even though he can afford, after the un-Islamic practices of the Muslims, in the name of true religion.

The fourth group is a minority group of the modern educated young men. In their opinion, religion should be combined with science, if it is to be preserved. They are not against the principles of Islam but they question the blind imitations, like keeping beard or wearing trousers only upto ankles. They do not feel it awkward to offer prayers while wearing a pant. But this group has not been able to get supporters in Sagar, though people do not criticize their individual modes of behaviour. Especially, in the material and formal social aspects of life, this group is moving towards modernization. Even the richest Momin, bidi-industrialist and a Congress worker from Sagar who is an exponent of strictly following the Arabian way of life, owns a well-furnished modern bungalow and cars. So, such persons do not mind favouring modern technology alongside of true Islam.

From the analysis of the facts and the structural and functional view-points, it appears that the Momin may safely be referred to as a caste-like group.

HUTTON holds that normally caste conforms to the following criteria:

1. Endogamy.
2. Restrictions on commensality between members of the different castes.
3. Hierarchical grading of castes, the best recognised position being that of the Brahman at the top.
4. High castes liable to be polluted by low castes—food, sex, ritual.
5. Traditional occupation.
6. Caste status determined by birth unless excommunicated.
7. System as a whole focussed around the prestige accorded to the Brahmans.

Each criterion of HUTTON has been thoroughly discussed throughout this paper. The results may here be compared.

1) The Momins are endogamous. A few cases of hypergamy are noted. But such hypergamy is not absent among the Hindu castes living in the town. The endogamy among the Hindu castes is based on the concepts of ritual pollution and purity. The endogamy among the Muslim groups is based on the traditional occupational status of the group.

2) Among the Muslim groups, due to absence of ritual purity and pollution as the basis of social stratification, there are not strict restrictions in the commensal relations, especially in big inter-group functions. But there are restrictions as far as private relations are concerned.

3) Among Hindu castes, the hierarchical grading is based on the concepts of pollution and purity. The hierarchy in occupations and the hierarchy in diets are also the guiding factors.

Muslim groups are hierarchically graded on the basis of the ranking of traditional occupations. The status of women and the extent of purdah are also the guiding factors.

4) Pollution and purity are equally applicable to all Muslim groups. Hence, the question of pollution of the higher groups does not arise. However, the use of the shame concept corresponds to the use of the pollution concept among the Hindus (BARTH: 1960: 142).

5) All the Muslim groups have traditional occupations, hierarchically graded, contrary to the basic principles of Islam. The traditional occupational status and the caste-status are synonymous.

Among the Hindus also every caste has its own traditional occupation.

6) Caste-status, which is a traditional-occupational status among the Muslims is determined by birth. If a new occupation is taken, difference is made between the new-occupational status and the traditional-occupational status (caste-status).

7) There is no such focus of interest among the Muslims.

Out of these seven criteria, the Muslim groups and the Hindu castes perfectly agree in four criteria, partially in one criterion, while in two criteria, there is no common meeting ground.

On four points, the two systems may agree perfectly, but their basis is different. "The similarity is a matter of structure rather than of culture. There is no syndrome of cultural traits which is common to all the societies concerned; each of HUTTON's minimal criteria is missing from one or other of these various systems'! (BARTH: 1960:5).

So, the Muslim groups and Hindu castes are comparable in their structural forms and functions. Whatever may be the basis of stratification, the Hindu and Muslim societies can be stratified into various closed groups. The societies are segmented into various divisions. In the Hindu caste system, this segmentation

is maintained through social distance based on ritual pollution and purity. Among the Muslims, the segmentation continues due to the hierarchy of occupations and the concept of shame which checks mobility. The extent of mobility in a town or departure from the prescribed norms of the group is of the same degree for Hindu castes and Muslim groups.

Though it is difficult and insufficient to study a single functioning group in the wider society of a town, the detailed discussion gives ample evidence for the Momins to be referred to as a caste or a caste-like group. If caste is regarded as a cultural phenomenon in the context of the Hindu society, the Momins may be referred to as a caste-like group. If caste is taken as structural phenomenon, and this view fits in more readily in the Islamic framework of Swat and Sagar, then the Momins can be referred to as a caste. It is true that, caste as a structural phenomenon would serve as a sociological category on a wider scale, but its world-wide application is doubtful, because, caste or caste-like exceptionally rigid classes are not found everywhere in the world. Caste certainly denotes a particular species of structural organization indissolubly linked with the Pan-Indian civilization.

The trends of change in the Momin community cannot be examined as an isolated fact. Arabianization provides a new analytic tool, but no generalizations are possible and the comparison with Sanskritization would not bear any fruits unless the whole Muslim community is studied, as a functioning part of the general society of Sagar. BARTH could compare the social stratification among the Muslims and the Hindus of rural units. The study of a single, small Muslim community in a town does not provide wider comparative categories. For the purpose of valid comparison in the present case, it is imperative for both the groups—the Hindus and the Muslims—to belong to one urban community.

NOTES: 1 Field-work carried out by Sri A. ANSARI under the supervision of Sri R. K. MUTATKAR.

2 Census taken by the investigator in 1960.

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MARRIAGE INVITATIONS TO THE DEAD

By

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॥ श्री ॥

ती॥ कैलासवासी श्रीमंत ताराऊ साहेब माहाराज वृंदावन संगम माहुली

वालके राजारामाने करद्वय जोडून त्रिकालचरणी मस्तक ठेवून सिरसाष्टांग दंडवत विज्ञापना ता। मार्गसीर्षं शु॥ पर्यंत वडिलाचे आसीर्वादिकरून सुखरूप असे वि॥ घरी चिरंजीव शिवजी राजाच्या विवाह (१) चा निश्चय मार्गसीर्स व॥ ७ भौमवार या दिवशीं केला आहे शरीर सबंध्य राजमान्य राजश्री राघोजीराव मोहिते नागपूरकर याची कन्या वधू नेमस्त केली आहे तर वडिलानी येऊन कार्य सिधीस न्यावे बहूत काय लि।ो सेवेसी श्रुत होय हे (निराळे अक्षर) विज्ञापना.

(लेखनावधि)

Similar invitations have been addressed to:—

(i) Shahāji Mahāraj, Vṛndāvana, Shri Shambhu Mahādeva

(ii) Shahu Mahāraj, Vṛndāvana, Sangam Mahuli.

(iii) Rāmrāje Mahāraj, Vṛndāvana, Sangam Mahuli.

(iv) Shah Rājeshwar Mahāraj, Vṛndāvana, Sangam Mahuli.

The Pārasnis collection[1] deposited in the Archives of the Deccan College, Poona contains five copies of a marriage invitation issued by Rāmarājā, the adopted son of Shahājī also known as Appāsāheb of Satara. Shahājī's first son Vyankoji died in 1864 without any male issue to succeed to the 'gādī' of Satara. The Queen Dowager, therefore, adopted Rāmarājā popularly known as Ābāsāheb, who became the Rājā of Satara in 1865. Rāmarājā, had two sons. The elder was Shivājī or Aṇṇāsāheb, and the younger was Pratāpasinha. The marriage invitation under consideration refers to the marriage of Shivājī or Aṇṇāsāheb, who became Rājā in 1904 and continued in that dignity till 1914. This marriage must have taken place between 1865 and 1904, as that was the period of Rāmarājā who had issued this invitation. The invitation mentions the date of the marriage according to the Hindu Calendar, but does not give the year. With the help of Chronological tables, a guess can be made of the year of

1 Rumal No. I, File 5, — 46-50.

which the date and day are given. The date mentioned in the invitation falls in the month of December of 1865, 1881, 1884 and 1888. Out of these four possible years, the first one can be eliminated, as it is too early for Rāmarājā to get his son married. Rāmarājā was adopted in 1865 and he became the Rājā of Satara in the same year. The remaining three years may be treated as possible years of his son's marriage.

Rāmarājā had issued this invitation separately to five departed ancestors of the Bhonsale family, namely Shahājī, Tārābāi, Shāhu, Rāmarājā and Shāh Rājeshwar i.e. Shahājī or Appāsāheb, the last Chhatrapati of Satara. All these invitations have been addressed to the *Vṛndāvanas*[2] of these departed ancestors. Whether similar invitations were issued to other departed ancestors is not known.

Prof. T. S. SHEJWALKAR had published a similar invitation of the early period of the 19th century under the title "A Unique Maratha Marriage Invitation to the Dead".[3] As he did not come across other similar invitations in the Archives of the Deccan College, he published the same "without any comments". But as nearly five such invitations from the same Archives, and that too of a later period, have been found, the one published earlier no longer remains a unique Maratha-marriage invitation to the dead.

Ānandībāi, the Queen Dowager, had issued this marriage invitation of her son Pratāpasinha to the deceased Rāmarājā, her father-in-law. Prof. SHEJWALKAR, on the basis, perhaps, of the Hindu date (but not the year), mentioned in the letter, fixed the date of the marriage as 29-11-1821, (Śaka 1743). The chronological tables show that this date and month also coincide with the date and month of the Śaka 1733 (1811 A.D.). Pratāpasinha had married two sisters of Rāmachandra Mohite of Nagpur, one after another. His first marriage took place immediately after his coronation in 1808, but as his wife died soon after that date he married her sister not very long after the death of his first wife. The invitation under consideration appears to be for the second marriage, which must have taken place on 21-11-1811, and not on 21-11-1821 as suggested by Prof. SHEJWALKAR. Pratāpasinha had two daughters from his second wife. The first daughter expired immediately after birth and the second daughter Gojarābāi was born in 1822.[4] It is, therefore, difficult to reconcile the year of marriage of Pratāpasinha as suggested by Prof. SHEJWALKAR with the year of birth of Gojarābāi.

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2 Vṛndāvana here means the memorial of the departed ancestor.

3 *Deccan College Bulletin,* Vol. IV, No. 1 year 1940, p. 80.

4 Marathi Riyasat: Uttar Vibhag, Vol. 3, pp. 519-20; 622.

It may be concluded from these two marriage invitations that the practice of inviting deceased ancestors to a marriage and seeking their blessings, was in vogue at least till the end of the 19th century. The present managing *pancha* of Khāsgī Devasthāna, Satara informs that this practice is not followed by the present descendants of the Bhonsales of Satara.

One of these five invitations was addressed to Shahājī, the father of Shivājī the Great, who died at Hodigere near Basavapattan in Karnatak in 1664 and his Cenotaph was later built by Chhatrapati Shāhū, at Śikhar Śinganāpur, a place in the Mān Taluka of the Satara District. There are two other cenotaphs of Shivājī the Great and his son Sambhāji.[5] We do not get any copies of invitation to this marriage, addressed to the remaining two samādhis at Śinganāpur.

The remaining four invitations have been addressed to Tārābāī, Shāhu Mahārāj, Rāmarāje and Shāh Rājeshwar, whose Vṛndāvanas are situated at Sangama Māhulī, about three miles east of Satara.[6] The rivers Kṛṣṇā and Veṇṇā meet here which gives the village the first part of its name.

Shāhū died in 1749, and his *Vṛndāvana* was constructed in the bed of the river Kṛṣṇā. It gets covered up with layers of sand and silt carried by the river and these layers are cleared annually at the time of Diwali and the death anniversary of Chhatrapati Shāhū is celebrated here on the third day of the dark half of Mārgaśirṣa, every year.

Tārābāī died in 1761 and her *Vṛndāvana* too is at the Sangama Māhulī. The *Vṛndāvanas* of Rāmarājā, the adopted son of Shāhū who died in 1773, and that of Shāh Rājeshwar i.e. Shahājī the last Chhatrapati of Satara who died in 1848, are also situated at Māhulī.

The State has made provisions for the daily worship of and offerings to these Vṛndāvanas and the Devasthan office at Satara is entrusted with these functions.

All the invitations mentioned above are sprinkled with saffron colour कुंकोत्री and the word "विज्ञापना" (request) appearing at the end of the letter seems to be in a different hand. The invitations bear the seal "लेखनावधि" (the limit of the writing) and not "मर्यादेयं विराजते" (here shines the limit) which is usually found on royal letters. It means that perhaps this invitation was drafted by some official of the State.

5 The Revised Edition of the Satara Gazetteer does not mention the samādhi of Shivājī, but states that the third samādhi was that of Shivājī and Hīrābāī of Kolhapur, p. 915. But local people maintain that one of the Cenotaphs is of Shivājī, the Great.

6 Satara Gazetteer does not mention these *Vṛndāvanas*. Information from the managing pancha Khāsgī Devasthāna, Satara.

The practice of extending personal invitations to family deities by the head of a family at the time of a marriage is well-known. The Brāhmaṇas perform a rite called *Nāndī Śrāddha* on such occasions as marriage, taking up residence in a newly built house ("गृहप्रवेश"), birth of a son, etc. As these are sacred, solemn and auspicious events, this rite is also known as *Vṛddhi Śrāddha*. On such auspicious occasions the *Nāndīmukha* 'pitaras' are worshipped with 'piṇḍas'. The group of 'pitaras' called *Nāndīmukha* usually consists of three paternal ancestors.[7]

There is one more group of ancestors between the family deities and the *Nāndīmukha* 'pitaras', whose blessings are sought at the time of a marriage, and that is of the Brahmībhūta ancestor, or that member of the family who has become one with the Brahman. He is treated as a semi-god. In some families, hand-written copies of a marriage invitation are placed before the 'samādhi' of the Brahmībhūta, and he is invited personally by the head of the family to attend the ceremony and to confer blessings on the couple.

The practice of inviting deceased ancestors for marriage, observed by the Bhonsales of Satara in the 19th century seems to be in line with the practices mentioned above. The Kshatriyas in general, it may be said, instead of performing the religious rite of Nāndī Śrāddha, as performed by the Brāhmaṇas must have observed the spirit behind it by adopting this practice of extending personal invitations to the departed souls of their ancestors. With the lapse of time, this practice too has become extinct, and it appears that people are now satisfied only with invoking blessings of family deities at the time of a marriage by extending a personal invitation to them.

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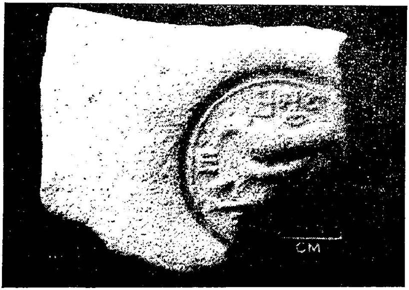
7 *History of Dharmashastras*, Vol. IV, pp. 527-28.



'Prasthadā' Seal-Impression of Aṁśuvarman.

A UNIQUE SEAL IMPRESSION FROM NEPAL

By

S. B. Deo

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In spite of abundant documentation in the form of archæological monuments, inscriptions and the various *Vaṁśāvalis,* the history of Nepal suffers from numerous lacunae. Leaving aside the early legendary-cum-mythological accounts, even the beginnings of the historical period are shrouded in obscurity till one comes to the period of the Lichchhavis. The Lichchhavis no doubt left their impress on the cultural history of Nepal as is even now attested by the numerous archæological remains which betray the Lichchhavi style and the scores of inscriptions carved in the typical Lichchhavi-Gupta characters. Even then the total picture of the times is as yet not clear.

The Lichchhavis are supposed to have been ruling over the Valley for a pretty long period. Though their more famous king Mānadeva I is assigned to the latter half of the 5th century A.D., the precise history of his ancestry is not yet secure. Similar is the case of king Aṁśuvarman who is supposed to have ruled in the first quarter of the 7th century A.D.. The exact relation of the king with the main Lichchhavi line is not known, though his records are numerous. He preferred to designate himself initially as a *'mahāsāmanta'* and only later on styled himself as *'shrī'*. However, he is known to have been the patron of learning, himself a scholar and an able administrator.[1]

There are various locations in the Valley, as also in Kathmandu proper, which are supposed to be the sites of the mansions of the Lichchhavi rulers and that of Aṁśuvarman. The records of the Lichchhavi rulers refer to *'Mānagṛiha'*. The records of Aṁśuvarmā mention *'Kailāsakūṭabhavana'*. Various attempts have been made to locate the sites of these palaces, but with little success and least unanimity.

With a view, therefore, to find out the antiquity of the material culture of the Lichchhavi and Aṁśuvarman periods, excavations were undertaken in the Tangal area of Kathmandu, which had the temple of Māneshwara. The name of the Śivaliṅga and its characteristic Lichchhavi polish were suggestive of the antiquity of the place. Besides this, several records of Aṁśuvarman were reported to have been found from the nearby Hāḍigaon area.

The excavations turned out antiquities in the form of coins, pottery and structures from the Lichchhavi to the Malla period. But in the horizons datable to late Lichchhavi period was found a unique antiquity.

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1 Regmi, D. R., *Ancient Nepal,* pp. 121 ff.

This remarkable antiquity was a seal impression on a coarse red potsherd, measuring about 5cm by 4cm, and .5 cm thick. On this was found stamped the motif of a standing cow facing left being sucked by a calf. The whole motif is apparently stamped on the pot when it was in leather hard condition so that it has not creased after firing. Had it been stamped when the clay was wet, then it would have been different.

The motif is stamped with a negative circular die with a diameter of 28 mm. It shows in relief, besides the standing cow and the sucking calf, four complete letters and one fragmentary. The cow and the calf are shown standing on a linear horizontal plane. The calf is depicted very realistically with its tail upturned. Below the mouth of the cow is a circular object which might be the fodder can.

The legend is written marginally, just at the periphery of the linear circle which encloses the entire motif. The legend, written in Lichchhavi Brāhmī characters, reads as follows:

To left, below the mouth of the cow: '*ja*';
Above the back of the cow, marginally: '*pra shṭha dā*';
Below the plane on which the cow stands: traces of a letter.

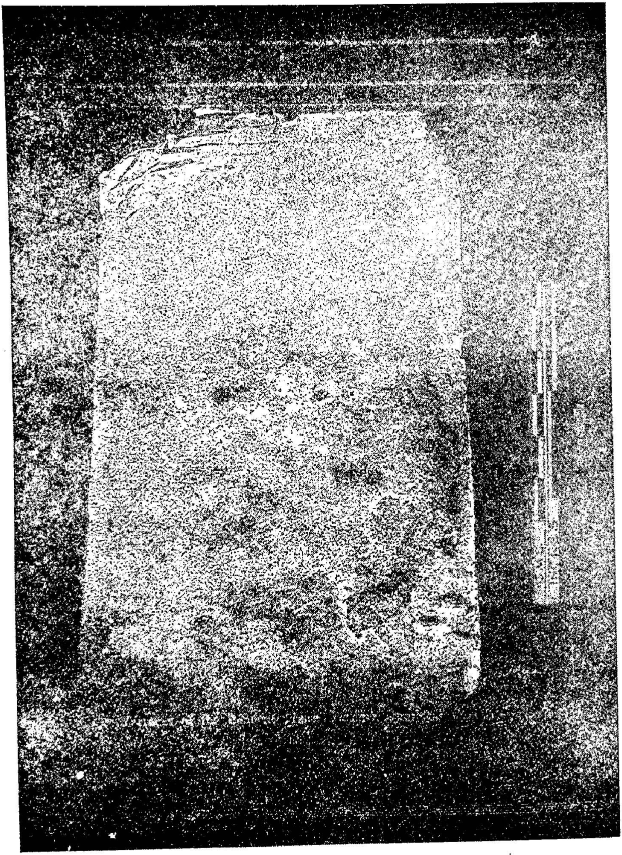
The main intact legend would read in correct Sanskrit "prasthadā", meaning '(a cow) yielding one prastha' (of milk). As is well known the *prastha* was a measure which was current during the Lichchhavi and Aṁśuvarman periods in Nepal.

The motif, inspite of different legend, compares well with that on the coins of Aṁśuvarman. The coins of Aṁśuvarman incorporate a type with the obverse showing a lion in a dotted circle and the legend 'śryaṁśuvarmā', and the reverse with a cow being suck by a calf. However, on top of the cow motif is the legend which reads 'kāmadohī', i.e., (a cow) yielding the desired quantity of milk[2].

In spite of the different wording of the legend on the coins, the import conveyed by 'kāmadohī' and 'prasthadā' is not of wide diverging. All the other details in these two motifs are identical. Moreover, the palaeography compares favourably with that on the coins of Aṁśuvarman. The ceramic evidence associated with the seal impression was definitely late Lichchhavi, inasmuch as, the Lichchhavi horizons preceding the horizon of the seal, yielded pottery which had technical and typological affinity with that from Gupta horizons at Ahichchhatra[3]. Thus by motif, palaeography and associated ceramic evidence, the motif and the legend of the impressed seal can be assigned to the period of Aṁśuvarman, or to Aṁśuvarman himself.

If this be so, then this seal impression will be the only piece of evidence of its type of the period of Aṁśuvarman, stamped on pottery, possibly for testing, but not on coins, for reasons not known. It is possible that the seal was meant for votive purposes and not for stamping on currency in circulation.

2 Joshi, S. M., *Nepālī Rāshṭrīya Mudrā*, p. 54.
3 Deo, S. B., *Excavations at Kathmandu*, (in press).



Copper Celt — Ramjipura, Tah. Harsud, District Nimar East.
9′ Deep —
Associated with —

COPPER CELT FROM RAMJIPURA, DISTRICT EAST NIMAR. (M.P)

By

C. Krishna

The Copper celt described here has been collected from the Village Ramjipura located on the Long 76.49' 30" and Lat 21.58' 30" in the Harsud Tahsil of East Nimar District.[1] It was found at a depth of about 2.44 ms while digging a spring for drinking water, at the bed of the River Ruprel a tributary of Narmada. It was found solitarily buried beneath the earth with no traces of any associated pottery. But a few sherds of pottery, might be of early period, a few beads including a cornclean and a few copper circular coins of Muslim period were collected from a nearby mound located on the bank of the upstream. From the eroded sections a few burnt bricks measuring roughly 36 cms long, 26 cms broad, with a thickness of 10 cms were also noticed.

Although discovery of Copper hoards and Copper implements were reported from many places in the Gangetic Valley, comparatively the number of such finds were less in the Narmada valley. The present celt can be the fourth or fifth in the order of discovery of such flat copper axes to the south of Narmada and second or third in the southern valley of Narmada occupied by Madhya Pradesh. The other sites so far yielding such copper celts are Gungeria in Balaghat District,[2] Navda-Toli in Khargone District,[3] Dabkia[4] in Jabalpur District and the other two Districts of Dhulia, and Nagpur in Maharashtra. The present find closely resembles the other celts from Gungaria[5] or Navda-toli, with a cut edge on one corner forming a slight shoulder and a curved edge on the other and a number of small cuts running parallel to the crescentic edge on the opposite. It is almost sub-rectangular in the form measuring in length 14.7 cms and width across the apex 8.7 cms and width across the widest portion 9.05 cms with an approximate thickness of sides 7 cms weighing about 915 grams. It has got a rounded butt and nearly parallel or very slightly tapering sides. Its type and other details may be more clear when the thick patination above is medeved.

A trial dig at the nearby mound, and a thorough field survey of the river bank may help to ascertain only the importance of the find but also the relation of the find with some local culture. It is evident from the sections of the mound that the site might have been inhabited since early times.

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1 *Indian Archaeology a Review,* 1961-1962. P.
2 *Imperial Gazetteer of India,* 1909, II.
3 *The Excavations at Maheshwar and Navda-Toli,* 1952-1953.
4 *Indian Archaeology a Review,* 1961-1962. P.
5 *Indian Antiquiry,* Vol. XVIII, 1914, Type "A."

MIDDLE STONE AGE INDUSTRY AT ASIFABAD

By

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Introduction

Prof. SANKALIA first gave a cultural and chronological significance to a group of flake implements found by him in a distinct stratified horizon at Nevasa[1]. This group of medium- sized flake tools are entirely different materially, typologically and stratigraphically from their preceding biface-clever complex and the succeeding microlithic tradition. The late Prof. SUBBARAO preferred to call this flake culture Middle Stone Age[2] and since then it has been referred to by that name. Soon after systematic search has been undertaken by many to find out similar cultural evidence in various other parts of the country[3]. This report is a sequel to such an attempt.

The two rivers that flow on either side of Asifabad have been explored by the writer in February, 1965, about a mile of each of their course and they have preserved well stratified Middle Stone Age horizon devoid of tools of any other culture.

Dr. (Mrs.) Bridget ALLCHIN[3A] reported in 1959 similar tools, unstratified, from Adilabad District. Prof. HAIMENDORF also collected a large number of implements on the surface from Adilabad.[4]

SITE

The site, Asifabad, formerly known as Jalgaon, lies between 19°12'-25' N and 79°15'-20' E. It is the headquarters for the Asifabad taluk in Adilabad District, situated in the north-east Andhra Pradesh (Plate No. I).

Asifabad is in a fertile plain, here and there broken by shrubby jungle. In the west rises a range of hills, their sparsely wooded slopes forming the ramparts of the region spotted with hamlets.

Once Asifabad was the land of Gonds, an aboriginal tribe[5]. Improved communications opened the region to immigrants from Telangana. Hence the Gonds have withdrawn from the plains and settled in the highlands nearby.

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1 SANKALIA, H. D. and others, *From History to Prehistory at Nevasa*, 1954-56, p. 102.

2 SUBBARAO, B., *Personality of India* (1958, Baroda).

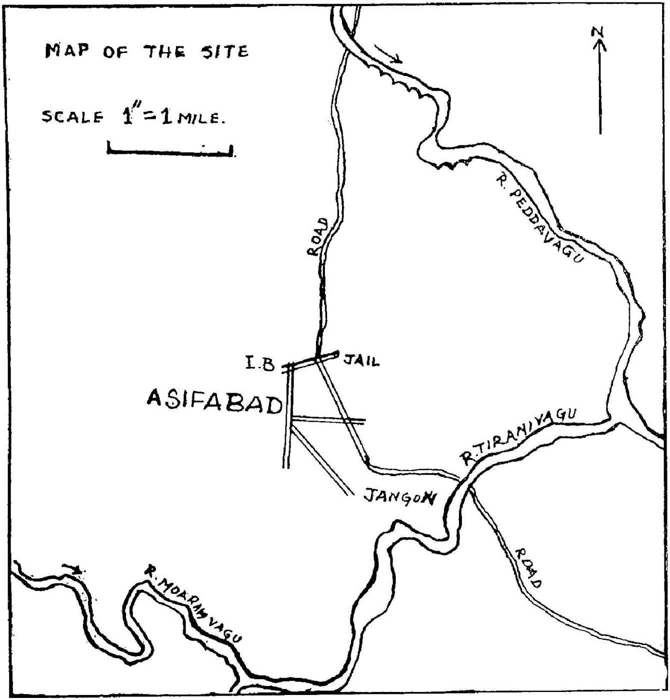
3 SANKALIA, H. D., "Middle Stone Age Culture in India and Pakistan", *Science*, 1964, pp. 365-375.

3A Bridget ALLCHIN, The Indian Middle Stone Age: Some new sites in Central and Southern India and their Implications. *Bull. Inst. Arch.* (*London*) 2, 1959, pp. 1-36.

4 SUBBARAO, B., *op. cit.*, p. 67.

5 FÜRER HAIMENDORF, Christoph Von., "The Raj Gonds of Adilabad". *The Aboriginal Tribes of Hyderabad*, Vol. III, 1948, p. 67.

PLATE NO. I



RIVERS

Two important perennial rivers, the Peddavagu and the Tiranivagu flow to the north and south of Asifabad respectively, both merging together a few miles down stream. The Peddavagu river on the north is fed by several streams that rise in the west in the same district and flows in a south-easterly direction for over 60 miles to join the Pranahita river, a tributary of the Godavari.

The Tiranivagu, flowing in the south in a north-easterly direction, is fed by two tiny streams with their source in the hills of the same district.

These rivers are fed by south-west monsoon that accounts for 40 inches of annual rainfall from June to November. The rest of the year they are fed by springs.

GEOLOGY

Geologically the area consists of Archaean granites on which rest unconformably sandstones, shales and limestones, belonging to the Penganga group of the upper pre-Cambrian. To the east the low ground is occupied by the bands of Gondwana. The Deccan trap overlies all these formations and is responsible for the rich black cotton soil in most of the depressions.

STRATIGRAPHY

Both the rivers, Peddavagu and Tiranivagu, flow through the plains, cutting deep into the shale beds and the banks on either side, which rise at times to a height of 40 feet, notably on the Peddavagu. They have preserved stratigraphic evidence of at least one cycle of aggradation represented by cemented gravel ranging from two to eight feet in thickness resting on shale and granite beds. It is overlain by a thick layer of light yellow silt varying from 10 to 30 feet. Subject to variation in thickness of these deposits at various points on the Peddavagu river, it has been divided into six localities, each one represented by a separate section drawn here (Plate No. II).

THE PEDDAVAGU

The cementing medium of the gravel of Locality I is lime. The gravel is quite compact and a massive block of it is lying in the river bed. The size of the pebbles varies from half an inch to three inches in diameter. In the rest of the localities the compact gravel is bound by calcarious material and the size of the pebbles is the same.

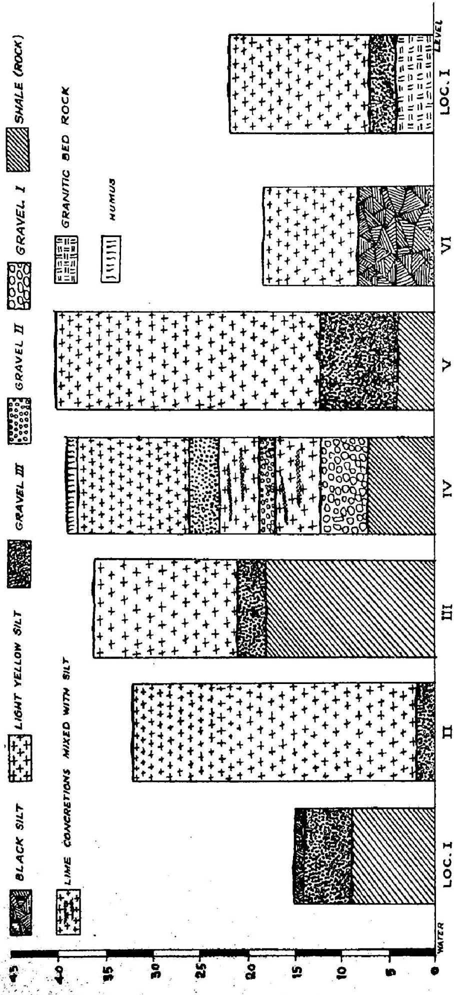
The gravel is derived from limestone, trap and shale. It is well rolled, patinated and weathered to greyish white.

At Locality IV there are two more thin bands of gravel overlying thick gravel layer on the bed-rock intervened by layers of silt of the same composition. The second and the third gravel layers are mixed with murram and clay and are loose. The size of the pebbles varies from one fourth inch to two inches in diameter. The gravels are made up of the same material as that of the first one. All the three gravel layers have yielded only Middle Stone Age implements (Plate No. III).

The silt overlying the gravel in all the localities is light yellow in colour. At Locality IV overlying the basal gravel is a layer of silt mixed with lime concretions.

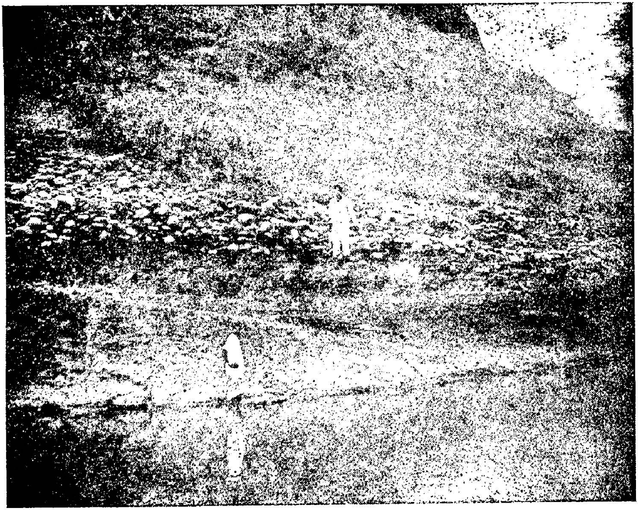
At Locality VI black silt is found resting against the yellow silt.

PLATE NO. II



SECTIONS SHOWING ON THE RIVERS, PEDDAVAGU (Loc. I TO VI) AND TIRANIVAGU (Loc. I).

PLATE III



Asifabad Locality IV on the River Peddavagu.

THE TIRANIVAGU

It presents strikingly similar stratigraphic sequence in composition and contents as that of the Peddavagu river, but the thickness of the gravel layer never rises beyond three feet in the area explored. The bed-rock is granite.

A tool (cleaver) of Early Stone Age made on limestone, much rolled and patinated is found loose in the river bed of the Peddavagu, besides numerous Middle Stone Age artifacts.

STRATIGRAPHIC AND PROBABLE CLIMATIC SEQUENCE

Nowhere in the area explored is found a gravel horizon yielding Early Stone Age implements. In the absence of this gravel horizon, and in view of the fact that a rolled artifact of the Early Stone Age tradition is found in the river bed, it may be inferred that the Early Stone Age gravel horizon has been eroded subsequent to its formation, thus laying bare the bed-rock. Its place has been taken by the Middle Stone Age gravel and silt of the next climatic cycle.

The present Middle Stone Age gravel seems to have been laid down on the rock during a wet phase when the rivers witnessed seasonal floods and the overlying silt during the following dry phase.

At Locality IV the thin bands of gravel overlying the basal gravel may not represent different climatic cycles in view of their similarity in composition and contents with the first one. But in all probability they indicate minor phenomena of one and the same climatic cycle.

Thus we have here at Asifabad the evidence for one climatic cycle, a wet phase and a dry phase represented by the gravel and the silt respectively.

Typologically our Middle Stone Age gravel horizon corresponds to its counterpart at Nevasa[6] on the Pravara river, that is, the second gravel horizon of the third wet phase of the upper pleistocene period.

The black silt observed at Locality VI is a recent flood deposit.

At this juncture it is pertinent to mention that serious doubts are voiced of late by leading Pleistocene Geologists in inferring past climate based simply on river deposits,[7] and so the foregoing climatic interpretation based on the river deposits must be regarded at tentative.

RAW MATERIAL, ROLLING, PATINATION AND WEATHERING

All the tools (total 62) are made on fine-grained rock: chert, jasper of green and purple colours, quartz, quartzite and agate. The chert is greatly patinated

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6 See n. 1. Also see, Table "Stone Age and Climatic Sequence . . ." at the end in SANKALIA, H. D., *Prehistory and Protohistory in India and Pakistan,* 1962.

7 FLINT, R. F. "Pleistocene Climates in Eastern and Southern Africa". *Bull. Geol. Soc. America,* 70, 1959, p. 347.

to deep yellow. But jasper flakes are not much patinated and some of them are remarkably fresh. Fine-grained quartzite and milky quartz are considerably weathered. Patches of lime concretions are present on some of the tools.

The degree of rolling of the tools in relation to raw material and their respective totals are shown in the following chart:

	CHERT	JASPER	QUARTZ	LIMESTONE	AGATE	TOTAL
1. Rolled	16	1	—	1	—	18
2 Less Rolled	10	4	—	—	—	14
3 Unrolled	22	6	1	—	1	30
Total	48	11	1	1	1	62

TECHNOLOGY

Majority of the implements are made on thick, medium sized and small flakes and a few on nodules and flake blades. Their respective totals are shown along with the classification of the tool types (Table No. 2). The following techniques are observed to have been used to turn out the implements.

'PLAIN' FLAKING TECHNIQUE'

The plane of striking platform of the majority of the flakes is plain without any sign of preparation prior to their removal from the core and they show prominent bulb with wide angle between the striking platform and the main flake surface. The cortex on the dorsal surface is present on some of them.

'FACETING' TECHNIQUE'

One core in the collection does show the evidence of multi-faceting of the platform for the subsequent removal of flakes. This technique is in contrast to the 'plain' flaking technique and gives rise to low-angle (90°) and diffused bulb on the flake surface.

BLADE TECHNIQUE

Three flakes in this collection are long and slender and the bulbs diffused. Platforms are plain. These may be called 'flake-blades'. However, no typical blade is found *in situ*. The cylindrical core with prepared platform, also shows some flake scars along the longitudinal axis evidently meant for the removal of blades.

The only 'biface' made on chert in this culture with its shallow and narrow flake scars and regular outline is done by cylinder-hammer technique.

8 Paterson, T. T. & Drummond, H. J. H., *Soan, the Palæolithic of Pakistan*, 1962, p. 52.

9 *Ibid.*

The secondary working on all the tools is mainly confined to the working edge and it is carried out mostly from a single surface, either dorsal or ventral. In the case of nodules the cortex away from the business edge is generally left untouched.

TYPOLOGY, CLASSIFICATION AND DESCRIPTION

It is proposed here, following PATERSON,[10] to depart from the currently prevailing classification of the tool types based simply on the probable 'function' of a particular tool or tools which may not conform to its actual usage. To avoid such misconceptions the following classification is drawn up "whereby tools are classed into groups according to the shape and character of the working edge with no attempt at suggestion as to its use".

All the regular tool types are divided into two broad divisions: (A) Single Tools and (B) Multiple Tools.

Their implications are explained here in brief:

(A) *Single Tools*: Each tool type is meant for a single purpose, whatever it may be, either scraping or piercing, and no dual purpose is served as is suggested by the nature of the working edge. The working edge is predetermined by the shape of the flake, straight or pointed, except in such cases where concavity is achieved by deliberate working. Several sub-types are observed in this (Table No. 1).

(B) *Multiple Tools*: As the term implies, in contrast to the former one, this group of implements are worked into tools in such a way as to serve more than one purpose, that is, a single tool may have a straight edge on one side and a notch on the other, which are necessarily meant for two different purposes. Again there are several sub-types in this division (Table No. 1).

CONCLUSION

It is clear that this tool tradition goes well with the 'Nevasian' industry in view of its striking similarity in raw material, typology and technology and is assigned to the Upper Pleistocene period.

ACKNOWLEDGEMENT

My sincere thanks are due to my Professor, Dr. SANKALIA for offering valuable suggestions in writing this paper.

10 PATERSON, *T. T.* "Studies on Palæolithic Successions in England", *Proceedings of the Prehistoric Society*, 1937, No. 7, p. 93.

Table No. 1

TYPE-WISE DISTRIBUTION IN RELATION TO CLASS & TOTALS

Class	Basic Type	SINGLE TOOLS						MULTIPLE TOOLS		Total
		1	2	3	4	5	6	1	2	
	Sub-Type	STRAIGHT EDGE Single	STRAIGHT EDGE Double	Convex Edge	Concave Edge	Pointed	Alround Edge	Point & Convex Edge	Point & Straight Edge	
1. RETOUCHED FLAKES		9	2	5	5	2	3	2	1	29
2. UTILISED FLAKES		6	—	3	—	4	—	—	—	13
3. NODULES		—	—	3	—	3	—	—	—	6
4. FLAKE BLADES		—	—	—	—	1	—	1	1	3
5. CORES		—	—	—	—	—	—	—	—	5
6. SIMPLE FLAKES		—	—	—	—	—	—	—	—	6
TOTAL		15	2	11	5	10	3	3	2 (+11)	62

RING WELLS IN ANCIENT INDIA

By

B. M. Pande

Ring wells, so called because of the lining with terracotta rings, have to be distinguished from other types of dug wells which, according to the mode of construction, may broadly be divided into the following four groups viz. (i) without lining (ii) with lining of bricks (iii) rubble masonry and (iv) terracotta rings. Theoretically, the first-mentioned type should be considered as the first human attempt to dig wells for purposes of procuring water; but in India the earliest archæological remains of dug wells are represented by brick-lined circular wells dating back as early as the Harappa Culture. Whatever may be the reasons, the lining of wells with rubble masonry, in the earlier periods, did not attain any popularity in India except in the Bhir Mound Phase at Taxila (West Pakistan). Of the four types mentioned above, wells with lining of bricks or rings had a widespread distribution in space as well as in time, and are still in vogue in different parts of India.

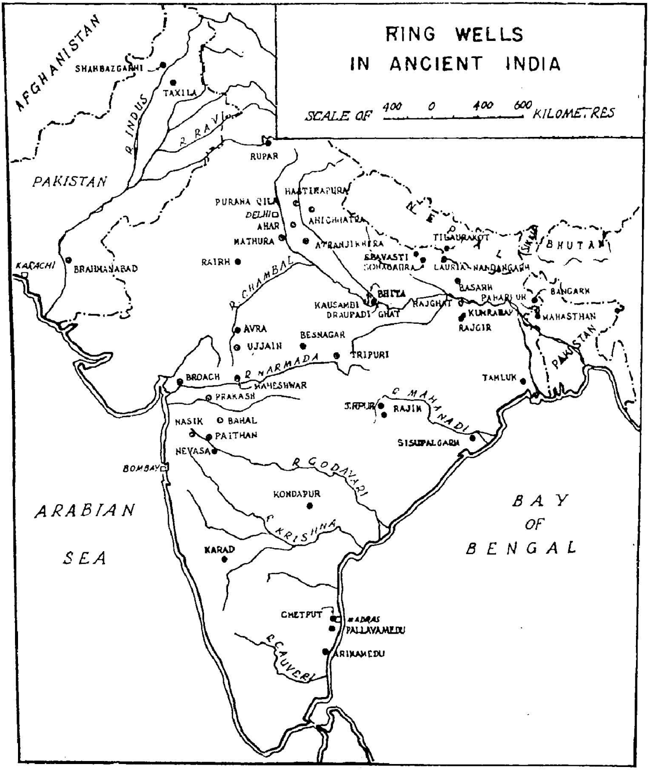
Some confusion is noticed in respect of the functional use of dug wells lined with terracotta rings; these have been identified variously as soak-pits, draw-wells and granaries. As the main purpose of the present study is to trace the development of ring wells in India, we cannot avoid this aspect of the study which can better be resolved, at least to a certain extent, by assessing the structural features of such wells. Further, our archæological data are too incomplete in respect of various essential details. The available excavation reports, in most cases, have seldom recorded the total depth, diameter and other relevant details of the ring wells. Likewise, the details regarding the structural relationship, exact chronological horizon and water-table in a particular locality, where ring wells have been unearthed, have also been neglected. The paucity of details have, thereby, made it difficult to arrive at a definite conclusion. Nonetheless, a few very important facts emerge out of the present study which may help us in throwing more light on the question of identification of ring wells.

1. DISTRIBUTION

A glance at the map (Fig. 1) will show the distribution of ring wells in ancient India over a vast area extending from Shahbazgarhi[1] in the north to

1 *Annual Report of the Archaeological Survey of India 1921–1922*, pp. 65–66. (Hereafter this publication is abbreviated as ARASI).

FIG. 1


RING WELLS
IN ANCIENT INDIA
SCALE OF 400 0 400 600 KILOMETRES
AFGHANISTAN
SHAHBAZGARHI
TAXILA
R. INDUS
R. RAVI
RUPAR
PAKISTAN
PURANA QILA
DELHI
AHAR
MATHURA
HASTINAPURA
AHICHHATRA
ATRANJIKHERA
NEPAL
TILAURAKOT
SIKKIM
BHUTAN
SRAVASTI
SOHAGAURA
LAURIYA-NANDANGARH
BASARH
PAHARPUR
BANGARH
MAHASTHAN
KUMRAHAR
RAJGIR
RAJGHAT
BHITA
KAUSAMBI
DRAUPADI GHAT
KARACHI
BRAHMANABAD
RAIRH
R. CHAMBAL
AVRA
UJJAIN
BESNAGAR
TRIPURI
R. NARMADA
BROACH
MAHESHWAR
PRAKASH
TAMLUK
R. MAHANADI
SRIPUR
RAJIM
SISUPALGARH
NASIK
BAHAL
PAITHAN
NEVASA
BOMBAY
R. GODAVARI
KONDAPUR
R. KRISHNA
ARABIAN SEA
BAY OF BENGAL
KARAD
CHETPUT
MADRAS
PALLAVAMEDU
ARIKAMEDU
R. CAUVERI

Arikamedu[2] in the south, and Brahmanabad[3] in the west to Mahasthangarh[4] in the east. The maximum occurrence of ring wells is, however, in the Ganga basin, with lesser concentration in the Taxila region in the north, and in the western Deccan. Their presence in rest of the area in central India and eastern coast is only sporadic.

2. STRUCTURAL FEATURES

The most characteristic feature of such wells is the use of terracotta rings inside circular shaft to forestall collapse of sides. The *sine qua non* of such wells is a dug-out pit which was cased with terracotta rings. There are instances also of twin ring wells in a large pit as at Tripuri[5] and Nasik.[6]

Needless to say single-ring-casing was the general rule, the only variation being at Arikamedu[7] where double-ring-casing was noticed. Another inexplicable feature is arrangement of series of pots vertically inside a ring well at Taxila[8] and Rairh[9] and at both these sites the pots were placed upside down with their bases perforated, the depth being 13′ (3.96 m.) and 2′-8″ (0.81 m.) respectively. Generally, the rings have a uniform diameter from bottom to top. However, there are certain ring wells where the uniformity in the diameter of the rings in a single well has not been maintained. For example, at Nevasa[10] and Bhir Mound[11], the ring wells were narrow at the top and wider at the bottom. At Arikamedu [12] and Nasik[13], however, the rings at the top were bigger in diameter than the lower ones. The difference in the diameter of the rings at Nevasa was probably due to replacement.[14] Besides, these dug wells were not always cased with rings alone from bottom to top; the upper part, in certain cases, was lined with wedge-shaped bricks, for instance at Bhita[15] and Hastinapura[16] (see below).

2 R. E. M. Wheeler, 'Arikamedu: an Indo-Roman Trading-Station on the East Coast of India', *Ancient India*, no. 2 (New Delhi, 1946); also J. M. Casal, *Fouilles de Virampatnam-Arikamedu*, (Paris, 1949).

3 *ARASI 1903-1904*, p. 135, fig. 2; also Henry Cousens, *The Antiquities of Sind*, vol. XLVI, Imperial Series, (Calcutta, 1929), pp. 51-52, fig. 4.

4 *ARASI 1928-1929*, pp. 89, 92-93, plate XXXVIII a & b.

5 M. G. Dikshit, *Tripuri-1952*, (University of Saugar, 1955), p. 23, pl. XVII. There is a detailed discussion on the ring wells in ancient India, with a detailed bibliography and a map showing the distribution of ring wells; cf. pp. 24-27 and fig. 5.

6 H. D. Sankalia and S. B. Deo, *Report on the Excavations at Nasik and Jorwe, 1950-1951*, (Poona, 1955), pp. 23-24.

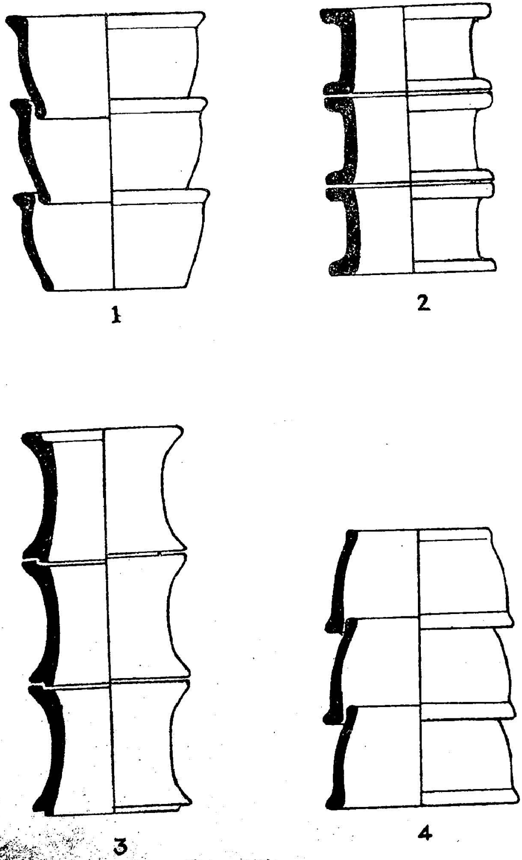
7 Casal, *op. cit.*, Annexe III, planche III, VI, VI, VIII a & b and XXIV.

8 Sir John Marshall, *Taxila*, (Cambridge, 1951), vol. I, p. 94.

9 K. N. Puri, *Excavations at Rairh*, (Jaipur), p. 15, pls. IIIe and VI.

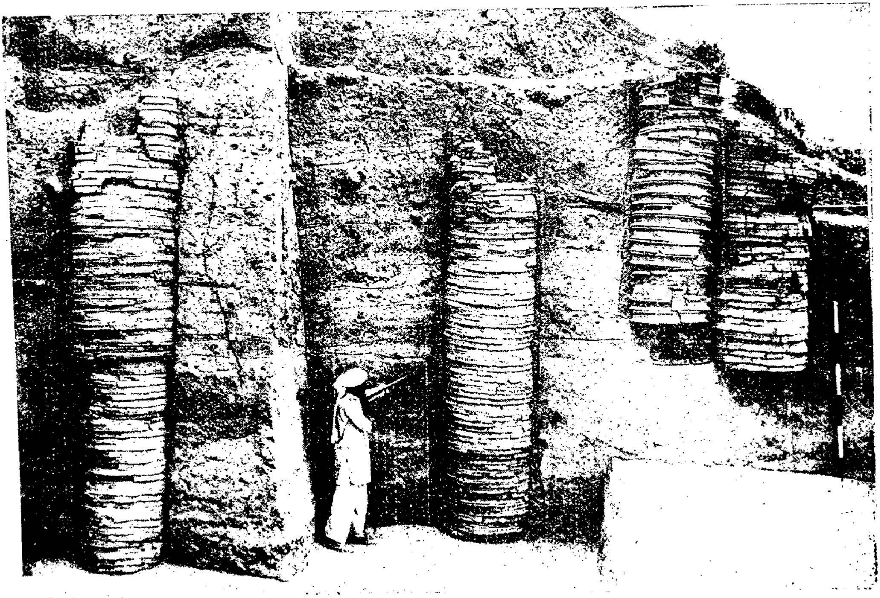
10 H. D. Sankalia, S. B. Deo, Z. A. Ansari and Sophie Erhardt, *From History to Prehistory at Nevasa (1954–56)*, p. 58, fig. 35c. (Footnotes contd. on page 211)

Fig. 2

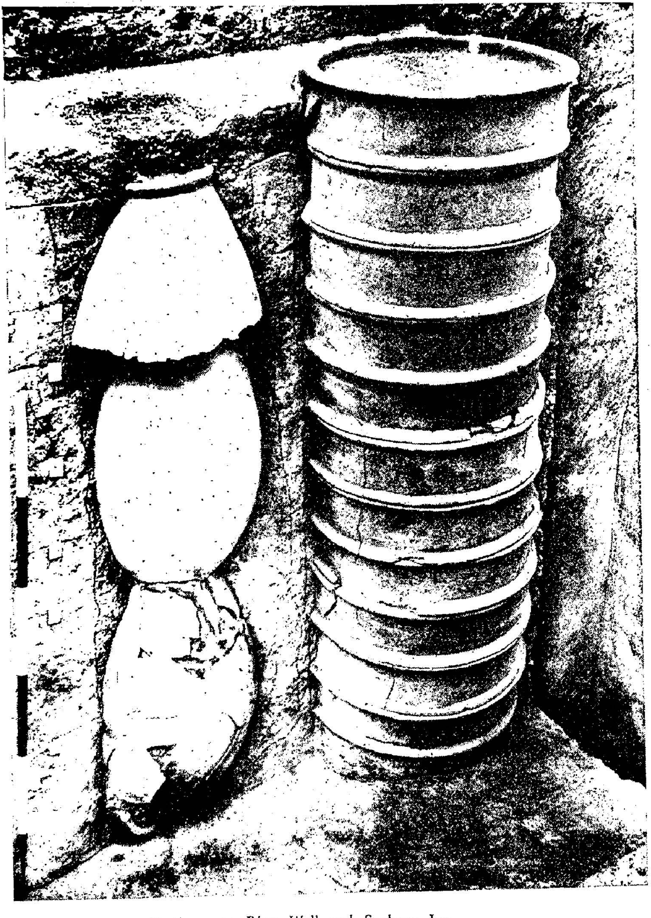


Types of Rings

PLATE I



Rupar: Ring-wells.



Hastinapura: Ring Well and Soakage Jars.

For the purpose of the present study, only the diameter at the top has been taken into account for lack of other essential details.

In diameter these ring-wells varied from 18″ (0.46 m.) to 54″ (1.37 m.) and can be classified into two diameter-groups: (i) ring-wells with diameter ranging between 18″ (0.46 m.) and 30″ (0.76 m.) and (ii) ring-wells with diameter over 30″ (0.76 m.).

The available data reveal that from c. sixth century B.C. to about second century B.C., the period conterminous with the emergence and spread of the Northern Black Polished Ware, the diameter of the ring wells varied between 18″ (0.46 m.) and 30″ (0.76 m.), the more common had diameter of 24″ (0.61 m.), 25″ (0.63 m.) and 26″ (0.66 m.). In the early Christian Era and later, ring wells with diameter exceeding 30″ (0.76 m.) were common. This chronological variation can also be noticed in regard to the spatial distribution of ring wells. For example, the ring wells in the Punjab and Ganga basin had a comparatively shorter diameter than those in the Deccan or in the eastern India.

3. CHARACTERISTICS OF RINGS

On the basis of their shapes, the rings fall into four broad categories (Fig. 2): (i) rings with mouth splayed in a way as to fit into the lower edge of the corresponding upper ring; (ii) rings with wide and flat top and bottom; (iii) rings with grooves at both the edges for fixing the upper ring into lower one firmly and (iv) rings with a narrower top and broader bottom. The shape of the individual rings thus obviated the use of any mortar or binding medium. Mention is made of ornate rings at Vaisali[17], but the exact shape is not clear.

Besides the complete rings, there are also examples or rings made of three (as at Rupar Plate I[18]) segments[19]. The height, taken collectively of all the types, varies from 4″ (0.10 m.) to 9″ (0.22 m.), the only exception being the ring wells at Arikamedu[20]. Rings with height ranging from 5″ (0.12 m.) to 8″

(Footnotes contd. from page 209)

11 J. Marshall, *op. cit.*, p. 95.

12 Casal, *op. cit.*, Annexe III.

13 Sankalia and Deo, *op. cit.*, pp. 23-24.

14 Sankalia *et. al.*, *op. cit.*, p. 58.

15 *ARASI 1911–1912*, p. 33.

16 B. B. Lal, 'Excavations at Hastinapura and other Explorations in the Upper Ganga and Sutlej Basins 1950,-52', *Ancient India*, nos. 10 & 11 (New Delhi, 1954-55), pp. 23-26, plates XXIII and XXIV.

17 Krishna Deva and Vijayakanta Mishra, *Vaisali Excavations: 1950*, (Vaisali, 1961), p. 11.

18 *Indian Archaeology 1953–54 - A Review*, p. 7, pl. IIB.

19 Cousens, *op. cit.*, p. 52 mentions modern ring wells made of two segments at Patan, north Gujarat.

20 Casal, *op. cit.*, Annexe III.

(0.20 m.) are generally characteristic of the fourth-third century B.C. It seems that rings with a height of 4″ (0.10 m.) made their appearance some time in the middle of the second century B.C. and as compared to examples of the earlier period, rings with shorter height were used in the subsequent periods. This over-all picture of the development of the size may not, in all the cases, hold good in all sites, since in certain areas older tradition may persist in the succeeding periods. For example, at Hastinapura[21] and Bhita[22] the height of the rings did not vary appreciably in different periods.

Rings with exceptionally large height ranging from about 9″ (0.22 m.) to 40″ (1.01 m.) were used at Arikamedu[23]. Likewise, at Rairh[24], in a few instances large earthern jars with bases snapped, were fitted in place of pottery rings.

Not much can be said about the thickness of individual rings because of the paucity of published data; the available evidence from Rairh[25], Shahbazgarhi[26] and Hastinapura[27] shows the thickness being ½″ (1.27 cms.), ¾″ (1.90 cms.) and 2″ (5 cms.) respectively.

4. DEPTH AND IN-FILLING

Most of the ring wells excavated from the sites were unfortunately left unopened; the few that were opened by some of the excavators, their contents were only catalogued. But the contents inside such wells may either be accidental or deliberate. For example, assorted potsherds, burnt grain, coins, animal bones, etc., inside a ring well do not reveal any thing since these can be common to both the soak-pits and draw-wells. Theoretically, a draw-well should yield silty earth at its bottom and in depth it should have been excavated up to the level of the water-table of that period in that particular area. Yet the necessity of digging such ring wells sufficiently deep must have been felt in order to reach the level of the existing water-table, which is generally not necessary in case of soakage- or refuse-pits. We have at hand evidence of ring wells reaching to a depth varying from 1′ (0.31 m.) to 23′ (7 m.), the number of rings in these wells ranging from 2 to 47.

The evidence from various sites reveals that all the ring wells were not excavated sufficiently deep into the natural soil. For instance at Rairh[28] we have

21 Lal, *op. cit.*, pp. 16 and 18.
22 *ARASI 1911–1912*, pp. 33, 39, 43.
23 Casal, *op. cit.*, Annexe III.
24 Puri, *op. cit.*, pl. IIId.
25 Puri, *ibid.*, p. 14.
26 *ARASI 1921-1922*, p. 65.
27 Lal, *op. cit.*, p. 16.
28 Puri, *op. cit.*, Appendix A (pp. 58-61).

about six examples of ring wells, out of a total of 115, constructed of rings numbering between two and five and they are cut to a depth between 1′ (0.31 m.) and 2′-10″ (0.86 m.). At Hastinapura[29], a ring well belonging to Period III (early sixth to early third cent. B.C.) had only two rings and its bottom was within the cultural deposits. Similarly, at Prakash[30], a ring well having eleven courses of rings, belonging to Period II was excavated within the cultural deposits, its bottom was much above the natural soil.

As against this, we have at hand the evidence of ring wells reaching the natural soil varying from 6 feet (1.83 m.) to 23 feet (7 m.). To cite instances, ring well 2 at Hastinapura[31], was dug at least to a depth of 23 feet (7 m.), without reaching the bottom and a considerable part of it was cut into the natural sand. The very presence of sand suggests that the water table was reached at Hastinapura or was not far too deep. Similarly, at Nevasa[32], out of a total depth of 10′-9″ (3.27 m.) 6′-3″ (1.90 m.) was dug right into the yellow silt indicating thereby the presence of water at that level in remote antiquity. At Brahmanabad[33], the ring well was dug to a sufficient depth, and much below the alluvial deposits and reaching the sand. Instances of ring wells dug deep into the natural soil are noticeable in a large number of other excavated sites.

Such an evidence is further corroborated by cases of stagnation at the bottom of the ring wells. At Nevasa[34] rings of the two ring wells existing side by side, in lower depths, were coated with greenish moss due to constant contact with water. Likewise, at Rairh[35], the pottery at the bottom of the ring wells bore light greenish colour, due to immersion in stagnant water.

5. WELL-HEADS

The necessity of constructing well-heads, whether in the form of a parapet wall, or placing a stone slab over the mouth of the rings or domical covers must have arisen in order to distinguish the well from the surrounding area. The wedge-shaped bricks used in the upper portion of certain ring wells and continuing above the then ground level must have formed part of the parapet wall around it. This might have been done in order to strengthen the upper portion of the ring wells, which is generally prone to wear and tear, as also to prevent dirt and living beings falling inside the wells.

29 LAL, *op. cit.*, p. 25, pl. XIB, XXIII.
30 *Ancient India*, no. 20 (in the press).
31 LAL, *op. cit.*, p. 23.
32 SANKALIA *et. al.*, *op. cit.*, p. 58.
33 *ARASI 1903-1904*, p. 135; also COUSENS, *op. cit.*, p. 51.
34 SANKALIA *et. al.*, *op. cit.*, p. 58.
35 PURI, *op. cit.*, p. 16.

By well-head, therefore, is meant the upper portion of a ring well or its covering which remained above the ground and may be classified into the following categories:—

(i) partial construction of ring wells in its upper part by bricks which continued above the ground level;

(ii) stone placed on the mouth of the ring well and having a perforation of the same diameter as the rings; and

(iii) loose domical cover of terracotta.

To cite instances under each category. It has already been mentioned (see above) that there are sites where the upper portion of a ring well was made of wedge-shaped bricks which probably formed part of a well-head. The most authentic evidence is from Hastinapura,[36] where a ring well, ring well 4, belonging to Period III, was surmounted by well-head made of wedge-shaped bricks, available to a height of five courses. From the plan accompanying the report, again, another ring well, ring well 2, also shows remnants of a similar construction represented by two wedge-shaped bricks lying *in situ*.

One of the ring wells at Bhita[37] had a similar construction, the upper seven feet (2.13 m.) of a ring well were constructed of wedge-shaped bricks out of a total depth of twenty feet (6.1 m.).

As late as the Pala period, the practice of constructing such well-heads over the ring wells continued, as is evident from the example of a ring well at Bangarh.[38]

Examples of the second category are available from Sisupalgarh[39] and Bhita.[40] At the former site, the ring well was capped by a square stone with an aperture of the same diameter as that of the ring well; rope-marks on the stone also be noticed on the inner edge of the stone.[41] Ring well at Bhita also was capped by a well-head.

The solitary example of well-head of the third category is from Tripuri.[42] In the form of a domical lid made of terracotta (see below), it was detachable and loosely connected with the top ring so that it could be lifted while in use.

36. Lal, *op. cit.*, pp. 25-26, pls. XXIII & XXIV.

37 *ARASI 1911–1912*, p. 33.

38 K. G. Goswami, *Excavations at Bangarh (1938–41)*, (Calcutta, 1948), p. 8.

39 B. B. Lal, 'Sisupalgarh 1948: an Early Historical Fort in Eastern India', *Ancient India*, no. 5, (New Delhi, 1949), p. 68, pl. XLIA.

40 *ARASI 1911–1912*, p. 39.

41 Lal, (1949), *op. cit.*, pl. XLIA.

42 Dikshit, *op. cit.*, p. 23.

6. STRUCTURAL ASSOCIATIONS

The construction of associated structures around ring wells at a number of sites give us a clue for ascertaining to some extent the functions of the ring wells (see below). The evidence from these sites can be summarized by taking into consideration the various types of such structures, the most noteworthy being the brick platforms or pavements, originally serving the purpose of an embankment or providing with an approach to the wells, have been noticed in a number of sites. At Kumrahar,[43] the ring well belonging to Period II had a 3′-6″ (1.06 m.) wide brick pavement around it. The ring well at Arikamedu was also originally surrounded by brick floors as reported by the excavator.[44] The most interesting evidence is furnished by the excavations at Bangarh where the ring well in Block II, belonging to the Pala Period, was surrounded by pavements with bricks-on-edge and laid flat bearing the sockets for placing the pitchers.[45] The evidence from Bangarh, incidentally, is corroborated by that of Nevasa[46], where, by the side of a brick-wall, "remains of what appeared to be a brick-platform with a storage jar fixed in it" were unearthed.

Similarly, at Besnagar,[47] Rairh,[48] Mahasthangarh[49] and Paharpur[50], the ground surrounding the wells were originally covered with brick pavements.

At Nasik, on the western side of the ring well, stones were dumped close to it which as the excavator says, "at the time of raising the original well with smaller rings, the occupants nearby might have deposited . . . as an embankment against the rings or as an approach to the wells"[51].

By far, the most unique evidence is from Āvrā[52] where a drain, 15 feet (4.57 m.) long, made of terracotta pipes and showing gradual slope was found joined to the top of a ring well.

Pottery drains in the vicinity of the ring wells have also been found at Rairh; whether these were connected to the ring wells in any way is not known. This brings us to another feature at Rairh e.g., construction of brick wells around a cluster of ring wells.[53]

43 A. S. ALTEKAR and Vijayakanta MISRA, *Report on Kumrahar Excavations 1951-1955*, (Patna, 1959), p. 31.

44 WHEELER, *op. cit.*, p. 32.

45 GOSWAMI, *op. cit.*, p. 8.

46 SANKALIA, *et. al.*, *op. cit.*, p. 57.

47 D. R. BHANDARKAR, 'Excavations at Besnagar', *ARASI 1914-1915*, p. 79.

48 PURI, *op. cit.*, p. 16.

49 *ARASI 1928-29*, p. 92.

50 *ARASI 1922-23*, p. 118, pl. XXVIb.

51 SANKALIA and DEO, *op. cit.*, p. 24.

52 H. V. TRIVEDI, 'Excavations at Avra' *Journal of the Madhya Pradesh Itihasa Parishad*, Bhopal, No. IV, 1962, p. 19, Fig. 1, pl. III.

53 PURI, *op. cit.*, p. 15.

The association of large-sized jars, with perforated bases, placed one above the other, very close to the ring wells have been unearthed at Hastinapura[54] (Plate II), Rairh[55] and Taxila[56]. Generally, such wells have a shallow depth.

7. LOCATION IN A SITE

That all ring wells, whether used as draw wells or as soak-pits, should be located in a habitational area is an *a priori* conclusion. If these were used as draw-wells, their exact location within a particular site may throw light on the nature of water supply. In case these were used as soak-pits we are also to presume a developed sense of hygiene amongst the inhabitants of different cities.

From the evidence of Bhir Mound we can safely say that ring wells, generally taken to be soak-pits, were located inside houses, each house having at least three such wells—one in the courtyard, one in the bathroom, and the third one inside the kitchen[57]. Out of the three, at least one, if not two, was meant for drawing water. This is not an isolated example, for Besnagar, District Vidisha, Madhya Pradesh, yielded a ring well located inside a room or kitchen[58]. Even at Brahmanabad[59] in Sind and at Ujjain[60], ring wells were found inside the house. The practice of digging wells inside kitchens or houses has its analogy in a sixth century Ajanta painting depicting some episodes from the *Mahajanaka Jātaka*, wherein a huge pot consisting of two rings fitted together is shown.

According to BHANDARKAR, kitchen wells fitted with rings are common in different parts of Belgaum district[62]. Those ring wells which were uncovered within a house or kitchen as at Ujjain, should, in most cases, on the basis of modern analogy, be identified as draw wells.

At Rairh[63], Nasik[64], Sravasti[65], Tripuri[66], Avra[67] and Nevasa[68], ring wells were uncovered near houses. But at Hastinapura[69] no structural remains contemporary to the excavated ring wells were found.

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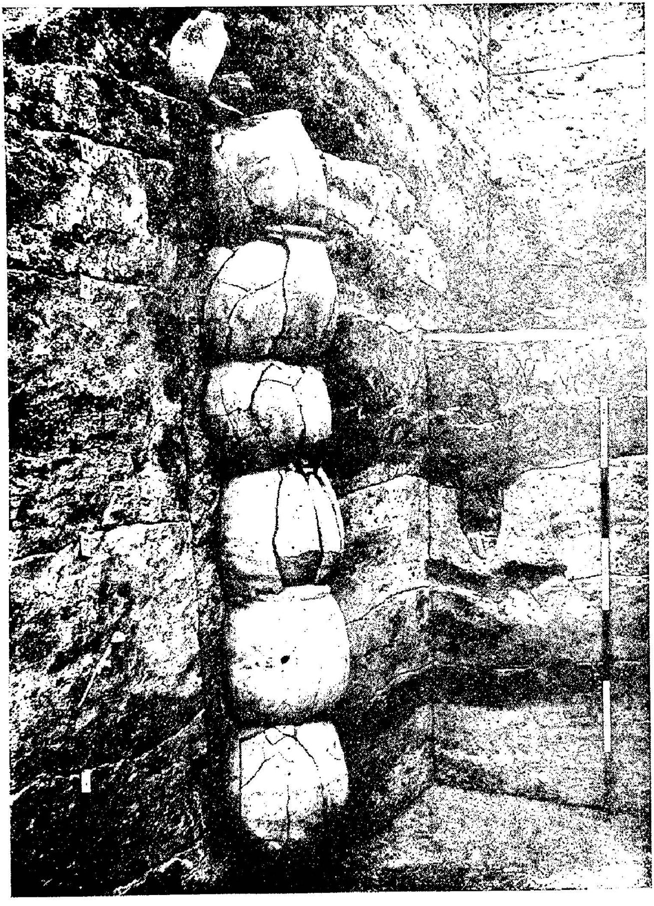
54 LAL, (1954-55), *op. cit.*, p. 25, pl. X.
55 PURI, *op. cit.*, p. 16, pl. IIIC.
56 MARSHALL, *op. cit.*, pp. 94-95, Pl. 6c.
57 MARSHALL, *ibid.*, p. 94.
58 BHANDARKAR, *op. cit.*, p. 79.
59 COUSENS, *op. cit.*, p. 51.
60 *Annual Administration Report of the Archæological Department Gwalior State for Vikram Samvat 1905, year 1938-39*, p. 18.
61 G. YAZDANI, *Ajanta*, (plates), Part I, (Oxford), pl. XII.
62 BHANDARKAR, *op. cit.*, p. 79.
63 PURI, *op. cit.*, p. 16.
64 SANKALIA and DEO, *op. cit.*, p. 24.
65 *Indian Archæology 1958-59 — A Review*, p. 51.
66 DIKSHIT, *op. cit.*, p. 23.
67 TRIVEDI, *op. cit.*, p. 19.
68 SANKALIA *et. al.*, *op. cit.*, p. XIII.
69 LAL (1954-55), *op. cit.*, pl. XXIV



Prakash: Soakage Jars.

The evidence given above shows that the ring wells in the majority of cases were owned privately. This also explains the presence of such a large number of ring wells at Rairh within a considerably small area.

8. FUNCTION

Ring wells have been identified variously as (i) draw wells, and (ii) soak-pits. There is, however, no definite criterion for differentiating one from the other and possibly the excavators have identified them on the basis of circumstantial evidence. But from the foregoing we may broadly outline certain features which are common to both draw-wells and soak-pits.

Normally the ring wells excavated to a sufficient depth, reaching much below the natural soil—till the then water-table was reached—may be put in the category of wells for drawing water. B. B. LAL in his Report on the excavations at Hastinapura has also suggested that ring wells with greater depth were used for drawing water[70]. Further, those ring wells which were surmounted by well-heads should generally be taken as draw-wells. In fact, at Bangarh, one such ring well "surrounded by pavements with bricks-on-edge and laid flat bearing the sockets for placing the pitchers, "had rope-marks at the top".[71] Similarly, the groove in one corner of the stone, surmounting the ring well at Sisupalgarh[72] may also be taken as a rope-mark.

Besides, those ring wells which were unearthed inside kitchen or rooms may be wells for drawing water. Such wells for drawing water are still in use in eastern India, north Gujarat, Belgaum and parts of Uttar Pradesh. It is significant to note that in *Harṣacharita*[73] ring wells are mentioned as *gaṇḍakusula;* in Hindi, rings are called *gānd*, which is possibly a corruption of *gandakusula;* in Bengali it is known as *maṇḍala* or *māṇḍala.*

Ring wells with shallow depth, and at times associated with large-sized jars arranged vertically may safely be identified as soak-pits. Perhaps these have been referred to in the Buddhist literature as *vachchakupa*[74]. Even today ring wells are being used in Kutch-Bhuj region as latrines[75]. We cannot also rule out the possibility of draw-wells once fallen into disuse being utilized as soak-pits.

70 LAL (1954-55), *ibid.*, p. 16.

71 GOSWAMI, *op. cit.*, p. 8.

72 LAL, (1949), *op. cit.*, p. XLI A.

73 V. S. AGRAWALA, *Harṣacharita -ek Sāṁskritika Adhyayana* (in Hindi), (Patna, 1953), p. 184, pl. 23, 90.

74 H. OLDENBERG (ed.), *The Vinaya Piṭakam*, Vol. II (The Cullavagga), (London and Edinburgh, 1880), V. 352.

75 Information from Prof. H. D. SANKALIA.

APPENDIX

LIST OF SITES WITH RING WELLS

(Sites where only occurrence has been mentioned and no data is recorde have been omitted. The same have been shown in the map)

S. No.	SITE	DISTRICT	DIAMETER (Top * | Middle ** | Bottom ***)	DEPTH	HEIG' OF RINGS	OTHER FEATURES	DATE	PUBLISHED REFERENCES
1	Arikamedu	Pondicherry				Originally surrounded by brick floors	C. Late 1st cent. A.D.	Wheeler, 'Arikamedu,' *Ancient India*, No. 2, pp. 29, 32; Pls. XV XVII.
1A	Virampatnam-Arikamedu	Pondicherry	24" (61 CMS.) * 26¾" (68 CMS.) To 33½" (85 CMS.) ** 25½" (65 CMS.) To 29½" (75 CMS.) ***		8¾" (CMS.) To 39 1/3'l M.)	Double-ring-casing; near the mouth of the ring wells were found basins for mixing colours.	C. 1st. cent. A.D.	Casal, *Virampatnam - Arikamedu*, Annexe III.
2	Bangarh	Dinajpur	A. 29" (73 CMS.) * B. 54" (1.37 M.) *	B. 6' (1.83 M.)	A. 8½ 21 CMS.)	Surrounded by pavements with bricks-on-edge; rope marks.	A. c. 3rd - 2nd cent. B.C. B. Pâla period	Goswami, *Bangarh*, pp. 8, 35.
3	Basarh	Muzaffarpur	30" (76 CMS.) *		A. 5" CMS.) B. 16" 0 CMS.)	B. Ornate top courses	C. 3rd - 2nd cent. B.C.	A. ARASI 1903-04, p. 92. B. Deva & Misra, *Vaisali*, p. 11.
4	Besnagar	Vidisha				Brick pavement		ARASI 1914-15, p. 79, PL. LI.
5	Bhir Mound	Rawalpindi (W. Pakistan)	21" (53 CMS.) * 25" (63 CMS.) ***		6" (1· IS.)	Ring wells inside houses.	C. 4th cent. B.C.	Marshall, *Taxila*, vol. I, p. 94.
6	Bhita	Allahabad	A. B. C. 29" (74 CMS.) *	A. 20' (6 M.)	B. 4½ 11 CMS.) C. 5 1. (13 CMS.) D. 5" CMS.)	A. Upper seven feet of wedge-shaped bricks. B. Provided with a projecting flange at the top. C. Capped with a square well-head.	A. c. 3rd cent. B.C. B c. 1st cent. B.C. C. C. 1st - 2nd cent. A.D. D. C. 4th - 5th cent. A.D.	ARASI 1911-12, pp. 33, 39, 42-43.
7	Brahmanabad	Sind (W. Pakistan)	24" (61 CMS.) *	Dug right into the sand below the alluvial deposit		Most houses had their own ring wells.	Pre-Muslim (?)	Cousens, *Sind*, p. 51; ARASI 1903-04, p. 135.
8	Hastinapura	Meerut	24" (61 CMS.) *	Maximum 23' (7 M.) without reaching the bottom of the ring well; cut into natural soil	5" (12 IS.) To 6" (14 IS.)	Certain ring wells made partly of wedge-shaped bricks on the upper portion	C. 6th - 3rd cent. B.C.	Lal, 'Hastinapura,' *Ancient India*, Nos. 10 & 11, pp. 16 & 25.
9	Kumrahar	Patna	20" (50.8 CMS.) *			3' 6" (1.06 M.) wide Brick pavement on three sides of the ring well	C. 150 B.C. - 100 A.D.	Altekar & Misra, *Kumrahar*, p. 31.
10	Lauriya-Nandangarh	Champaran	36" (91 CMS.) *				C. 2nd. cent. B.C.	ARASI 1935-36, p. 66.
11	Nasik	Nasik		16' 3" (4.95 M.) 14' 4" (4.36 M.) resting on natural soil		Pair of ring wells; stones dumped close to a ring well as an embankment or approach to the wells.	C. 5th - 3rd. cent. B.C.	Sankalia & Deo, *Nasik & Jorwe*, p. 23.
12	Nevasa	Ahmadnagar	39" (99 CMS.) * } Western 33" (84 CMS.) *** } Ring Well 18" (46 CMS.) * } Eastern 15" (38 CMS.) *** } Ring Well	10' 9" (3.27 M.) of which 6' 3" (1.90 M.) is dug into the natural soil		Pair of ring wells in a single pit; sides and space in between the ring wells was full of black clay.	C. 3rd - 2nd cent. B.C.	Sankalia ET. AL., *Nevasa*, p. 58.
13	Rairh	Jaipur	24" (61 CMS.) *	1' 4½" (.42 CMS.) To 19' 4½" (5.90 M.). Some ring wells penetrate into the natural soil	7" (1 IS).	Clusters of ring wells surrounded by low walls; certain ring wells packed with upside down and bottoms perforated; raising and reusing of ring wells; ring wells and storage jars placed side by side.	C. 200 B.C. To 200 A.D.	Puri, *Rairh*, pp. 14-17; Pls. III-a-e, V, VI & Appendix A.
14	Rajghat	Varanasi	About 24" (60 CMS.) *		(7.1·)		C. 6th - 4th cent. B.C.	*Indian Archæology* 1961-62—A Review, p. 58.
15	Shahbazgarhi	Peshawar (West Pakistan)	27" (69 CMS.) *		9" (2 IS.)			ARASI 1921-22, p. 65.
16	Sisupalgarh	Puri	18" (46 CMS.) *			Surmounted by a Stone slab having a central aperture of the same diameter as the ring-well; rope mark on the slab	C. 2nd cent. B.C. To 1st cent. A.D.	Lal, 'sisupālgarh,' *Ancient India* No. 5, p. 68, Pl. XLI A.
17	Tripuri	Jabalpur	34" (86 CMS.) *	12' 6" (3.81 M.) To 13' (3.96 M.) natural soil	8" (2MS.)	Pair of ring wells in a single pit	C. 3rd cent. B.C.	Dikshit, *Tripuri*, p. 23-27.

Sumerian ritual, and when we find in the Gig-par-ku temple a similar drain in precisely the position where an *apsu* should be the identification becomes a certainty". Such "drains" were constructed by digging a circular pit about a metre and a half in diameter and inside it were placed terracotta rings one on top of the other. At times the rings had small holes in the sides; certain "drains" had domical lids as covers (cf. Tripuri) as well.

Besides being of religious character, these "drains" were also used as seepage drains. These have been described by some earlier writers[78] as wells "and according to KOLDEWAY they actually seem to have served that purpose in the houses of the dead at Zergheli and el-Hibba". It is interesting to note that in primitive form such "clay drains" were made of jars "joined to one another by breaking off the bottoms". These "drains" occurring inside all types of various building complexes have been found from the Early Dynastic Levels (c. 4000-3500 B.C.) to the Achaemenid period and even later.

11. CONCLUSION

It is evident that the idea of constructing ring wells was a foreign innovation which possibly travelled to north-west India when *Hiddo* and *Gadaro*[79] formed the twentieth satrapy of the Achaemenid empire. The function of such wells, as already stated above (see above) varied from soak-pits to draw-wells. It is, however, certain that religious origin of such constructions was absolutely forgotten when the practice entered India. It may also be mentioned that the idea of placing jars (Plate III) one over the other and their bottoms snapped had also its origins outside India.[80]

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78 John Punnett PETERS, *Nippur or Explorations and Adventures on the Euphrates*, Vol. II, (New York and London, 1898), pp. 235-36. There are numerous other references to the occurrence of ring wells outside India which I propose to deal with in a separate paper.

79 Hemchandra RAYCHAUDHARI, *Political History of Ancient India*, (Calcutta, 1953), sixth edition, p. 240.

80 I am beholden to Shri B. B. LAL, Director, School of Archæology for suggesting me this topic for investigation. I am grateful to Shri H. SARKAR for his guidance in the writing of this paper. Thanks are due to Shri Jassu RAM and Shri A. K. GHOSH for preparing the drawings accompanying the paper. Photographs are by courtesy of the Archæological Survey of India.

PRELIMINARY REPORT OF THE EXPLORATION AND EXCAVATION OF STONE AGE SITES IN EASTERN PUNJAB

By

G. C. MOHAPATRA

Under the auspices of the Council of Scientific and Industrial Research, the Punjab University, Chandigarh, had been conducting a research scheme "Explorations for the remains of Early Man in India", since 1958. Its objectives were to explore and excavate for the cultural and physical remains of Early Man mainly in four areas i.e., the Karewas of Kashmir, the Shivaliks of E. Punjab, the middle reaches of the Narmada valley and the ossiferous caves of Kurnool. The present author joined this scheme as an Investigator in 1961 and was assigned the work of exploration and excavation of prehistoric sites mainly within the Eastern Punjab. The present paper is a short report of the prehistoric researches carried out under this scheme from 1961 onward with special emphasis on some important discoveries and their significance.[1]

EXPLORATIONS

Kangra District:— During April and May 1961, while exploring the upper reaches of the Beas from Manali to Dehragopipur the author located some Sohanian sites at Tira Sujanpur, Alampur, Nadaun and Dehragopipur.[2] As the last named place yielded a rich collection of artifacts in the preliminary survey, explorational activities were intensified around this area and an excavation was conducted during the months of October-November 1963. A small report of this excavation will presently follow.

The implementiferous localities at Tira Sujanpur, Alampur and Nadaun are situated on the terrace adjacent to the river. The valley, in which Nadaun is situated, is fairly wide and plain extending from Pumehr to Chamba-Ghat, a distance of about twelve miles. The constricted channel of the Beas after crossing the steep hills at Pumehr widens out and freely meanders in this valley up to Chamba-Ghat where it again becomes narrow, until it finally emerges into the plains at Dehragopipur. The implements, not too many in number, are usually the pebble choppers mostly made on quartzite and occasionally on hard sandstone.

During the months of October and November 1963, the field work near Dehragopipur was mostly confined to the right bank of the river. In the neigh-

1. A short note announcing these discoveries was published in *Current Science*, March 20, 1964, 33, No. 6, pp. 178-180.

2. From Dehragopipur B.B. LAL had collected fourteen pebble-tools and flakes in 1955. *Ref.* LAL, B.B., 'Palaeoliths from the Beas and Banganga Valleys, Punjab', *Ancient India* No. 12, 1956, pp. 58-92.

bourhood of the village Dehra, about half a mile downstream of the Dehragopipur Civil Rest House, four terraces of the river Beas were recorded at heights 10, 65, 137 and 162 feet from the water level. The last terrace, which may be called Terrace I, rests against the upper Shivalik soft grey sandstones. A fossil tortoise bone (*Clossochelys atlas*) was found lying on the surface of this terrace which in all probability comes from the adjoining Upper Shivalik fossiliferous beds. All the terraces excepting the lowest one i.e., the Terrace IV, were found to contain implements. Terrace III, which is the most implementiferous, yielded a surface collection of 125 Sohanian pebble and flake artifacts along with a polished celt of shoftish grey shale. During the brief explorations in 1961 twenty-four implements were collected from this terrace. The other two implementiferous terraces i.e., Terrace II and I, yielded three and twenty implements respectively.

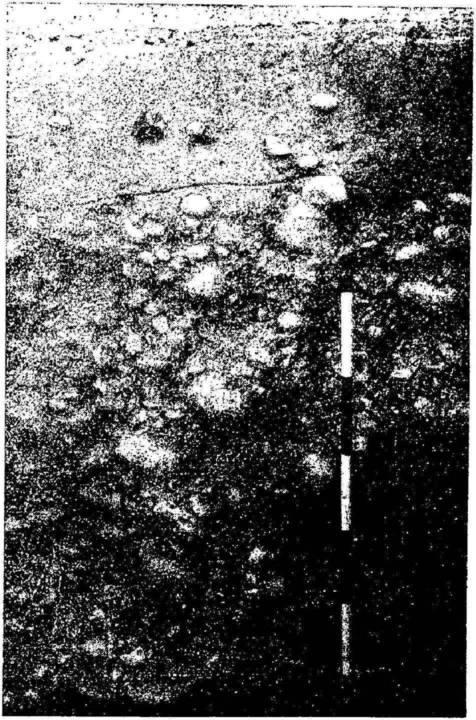
On the way to Chamba-Ghat, which is situated on the left bank of the Beas about seven miles upstream of Dehra, Sohanian localities were found at places like Sunnet, Phera, and Chamba-Ghat. At Phera a succession of three terraces is clearly seen (Pl. III). From Terrace III which is adjacent to the river, seven implements were found at Sunnet, five at Phera and three at Chamba-Ghat. Opposite to Chamba-Ghat, on the other bank of the river, the three terraces again appear near the village Nand. Here the Terrace I is easily marked out by the solitary banyan tree on the top of it. Four implements were found, two each, from Terrace I and Terrace II.

Downstream, towards the west of the village Dehra, implementiferous localities were found at Bari, Maleta, Baughta and Sirha; all situated on the right bank of the Beas. As the river has meandered quite close to the Shivalik formations the sequence of terraces in this area does not seem to have well-developed. The above named villages are mostly situated on the Terrace II which yielded four implements near Bari, five near Maleta, twenty-seven near Baughta and only one at Sirha.

The other area which was systematically explored during the 1963 field-season lies about ten miles to the north-east of Dehra in the valley of the Banganga near Haripur-Guler.[3] Beginning from the village called Pirwalabasa, a little above the Guler railway station, a sequence of seven terraces was recorded in this valley which extend up to the confluence of Beas-Banganga, covering a distance of about five miles.[4] Sohanian (Early Sohan type) artifacts were found from Terrace I to IV on the right bank of the Banganga over which the Guler railway station is situated. The rest three terraces are not so well-developed in Guler side as they are on the opposite bank. The Terrace III

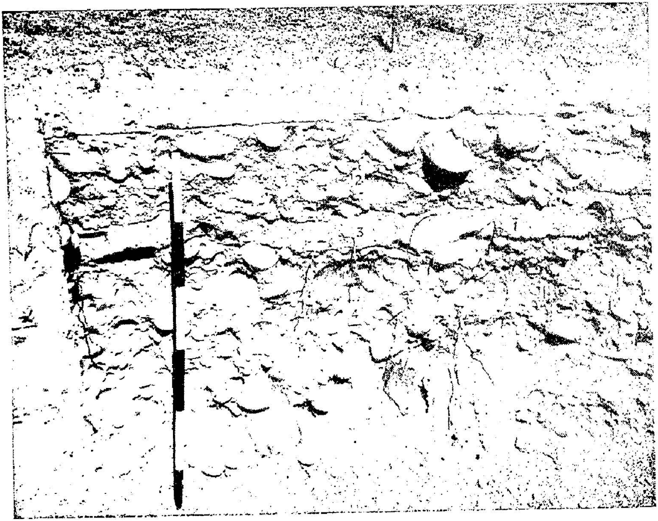
3. B. B. Lal had also explored this area in 1955. Lal, B. B., *op. cit.*
4. Lal reports only five terraces in the neighbourhood of Guler railway station. Most of the villages mentioned in this report are plotted in Survey of India topo-map 1″= 1 mile, No. 53 A/1.

PLATE I

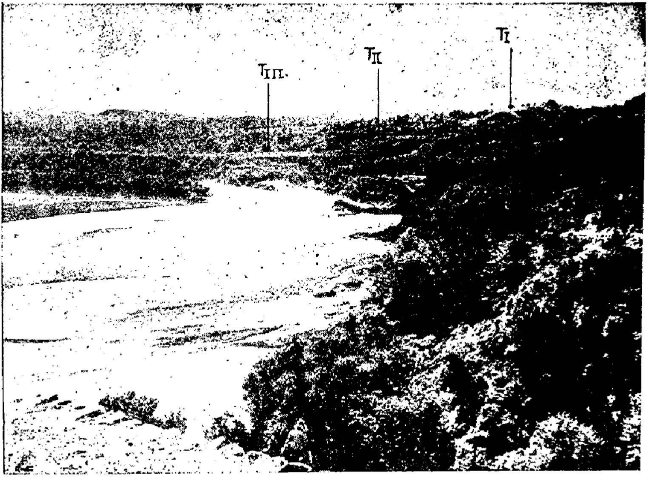


Dehragopipur Excavation: Section of Trench I.

PLATE II

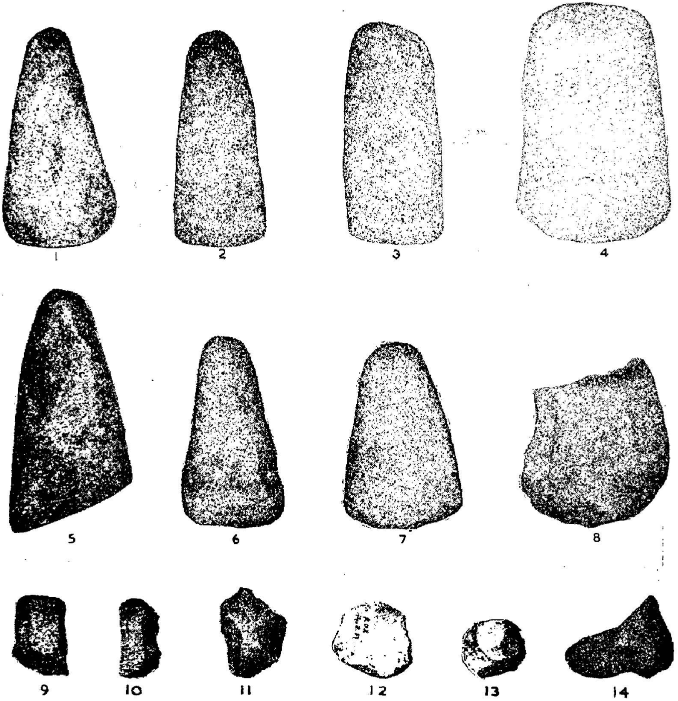


Dehragopipur Excavation: Section of Trench II.



Terraces of the Beas at Phera, Kangra District.

PLATE IV



Neolithic Celts 1-8, Small Flake-Tools 9-14 from Ror.
Explorations in Kangra District, East Punjab.
G. C. Mohapatra

on the other bank of the river, over which the Haripur bazar is situated, extends southwards upto the village Bangoti. Below this village a slope of about 60 ft., marks the end of Terrace III. At the foot of this slope there is a village called Ror which, in fact, is the beginning point of Terrace IV. This terrace extends about half a mile downstream upto the village Dibber where its level slopes down to another 60 ft., marking the beginning of Terrace V. This terrace ends at the village Jakkar and Manjhwan below which the Terrace VI lies at a level which is about 70 ft., lower than the preceding terrace. From Khilru upto Haler Anor a low stretch of land is seen which may be taken as Terrace VII, the height of which is not more than 30 feet from the water level. Taking the water level at the confluence as 'O' point the level of the seven terraces were roughly measured as follows:—

T. VII 28 feet from the water level, on the left bank.

T. VI 98 feet from the water level, on the left bank.

T. V. 158 feet from the water level, on the left bank.

T. IV 218 feet from the water level, on the left bank.

T. III 278 feet from the water level, on both the banks.

T. II 333 feet from the water level, on the right bank.

T. I 528 feet from the water level, on the right bank.

From Guler side seven pebble-tools were found on Terrace I, only one on Terrace II, five from Terrace III and nine from Terrace IV. From Terrace III on the left bank of the Banganga, over which Haripur bazar is situated, nine implements were collected from three different localities. Below this Terrace the Terrace IV yielded thirty-three Early Sohan type pebble-tools, one hundred and forty-one small flake implements of chert (Pl. IV, nos. 9-14 & Text Figs. 1-11), thirty-one pieces of Neolithic polished stone celts and half of a ring-stone (Pl. IV, nos. 1-9). Implements belonging to all the three industries lie scattered on the surface of half a square mile area between the villages of Ror and Dibber. It has been noted that the small chert flakes and the polished celts (the two new industries so far unknown in E. Punjab) do not occur in the upper terraces like Terrace I, II or III. Unfortunately due to lack of time their occurrence in the lower terraces like Terrace V, VI and VII, could not be ascertained.

The Sohanian implements found from the explorations are usually the pebble choppers and simple unworked flakes of the Early Sohan type. Technically

speaking, the crude-simply flaked and a bit developed- extensively flaked types of choppers were found together in almost all the places. There are some specimens over which well-controlled flake scars with tiny steps, presumably done by the soft-cylinder hammer technique, are seen. But the flakes show no refinement. The average size of the choppers is fairly handy although there are a few which are almost massive. The small flake tools found at Ror being made out of a distinct raw material like chert are easily separated from the waste-flakes of the Early Sohan industry which is mainly based on quartzite pebbles. Scraper and borer are the two most dominant tool-types of this flake industry. Although there are a few blade-flakes and a good deal of prepared platform flakes in this industry, still the pebble element is found to be a vital accompaniment perhaps due to the peculiar pebble-tool trend in the north-western India. The grey colour of the cherty raw material is concealed under a white calcareous patination.

The polished celts and the ring-stone being prepared out of a type of soft grey shale show highly weathered physical condition. Inspite of this faulty raw material there are some very skilfully made specimens with smoothed body and sharp working edge. All the celts belong to the pointed-butt variety without faceted sides.

Ambala District:— Since 1961 several explorational trips have been made to the valley of the Sirsa between Pinjore and Nalagarh,[5] and the valley of the Ghaggar around Chandimandir.

SEN in his report has given a very clear picture of the succession of terraces and their lithic contents in the Sirsa valley.[6] Out of the three terraces in this valley, which SEN has described, the Terrace I (approximately 70 ft., from the water level) yielded to the author an assemblage of artifacts which mainly contains pebble choppers, scrapers and flakes at Nalagarh, Pirthan, Khokra-ka-choa, Bhud and Rampur. In this industry the choppers are handy in size and shape with marks of well-controlled flaking presumably with the soft-cylinder-hammer. There are a few scrapers on flakes resembling those of the Mousterian in Europe. There are other advance type implements in this industry like the discoid (Text. Fig. 18.) which is flaked bifacially with a perfectly circular outline and a biconvex cross section, the prepared flakes and blade flakes. When compared with the Early Sohan artifacts collected from the Beas-Banganga valley, the Sirsa valley ones stand out as technically more advanced.

5. MOHAPATRA, G. C., *The Stone Age Cultures of Orissa*, 1962, p. 160.
6. SEN, D., 'Nalagarh Palaeolithic Culture; *Man in India*, xxxv, no. 3, July-Sept. 1955, pp. 176 ff.

Explorations around Chandimandir in the Ghaggar valley yielded Sohanian implements at Dera Kharauni and Mansa Devi. The artifacts are mainly the pebble choppers and unworked ordinary flakes. Due to heavy erosional activities of hundreds of small rain gullies coming down from the Shivaliks, the terrace sequence of the Ghaggar around Chandimandir presents a very complicated picture. However, the high terrace running parallel to the railway track near Chandimandir railway station was found to be quite extensive from which all the implements were discovered.

Excavation At Dehragopipur, District Kangra

The excavated site is situated on the right bank Terrace III of the Beas, about half a mile downstream of the Dehragopipur Civil Rest House. At this point the river has eroded a part of the terrace exposing a vertical cliff of 65 feet which shows, from bottom upward, (1) Upper Shivalik soft grey sandstone 45 ft., (2) gravels and boulders with course sand 15 ft. and (3) reddish silt 5 ft.

The terrace is fairly flat and extensive with a thin mantle of silt (approximately 5 ft., seen in the cliff and in the excavated sections) which supports cultivation. Two trenches were excavated, about 500 feet apart from one another, on an uncultivated part which was nearly 100 feet away from the edge of the cliff. The stratigraphy of the deposits recorded in the excavated sections does not differ from that found in the cliff section. Neither in the cliff section nor in the trenches the gravel is implementiferous. The implements occur only in the top silt which is being loosened year after year by cultivation. After every ploughing one can easily pick up fresh implements from the loose earth.

The implementiferous silt layer which is about three feet in Trench I and only eight inches in Trench II (Pls. I & II) yielded 105 and 7 implements respectively. This amazing discrepancy between the total number of implements recovered from the two trenches of same dimensions (20′ x 20′) may suggest that the artifacts occur in clusters. Such clusters of artifacts have been recorded at almost all the implementiferous localities discovered during our explorations in the Beas-Banganga valley.

The excavated implements are mostly the pebble choppers and scrapers accompanied by quite a large number of unworked flakes and a few simple cores. Although the pebble choppers and scrapers are mostly unifacial there are a few flaked bifacially also. Out of about thirty flakes hardly one shows any secondary trimming or marks of use. Inspite of the fact that the excavated implements are better preserved than the surface ones, invariably every specimen bears some traces of rolling and weathering. There is no indication of a Levallois technique among the flakes and cores nor there is a specimen which may typo-technologically resemble a handaxe or *coup-de-poing*. In majority of cases the most

popular method of flaking seems to have been the block-on-block technique which resulted in deep and bold flake scars. But there are a few specimens over which traces of soft-cylinder-hammer technique can also be discerned. The flakes, generally, are big and coarse with unprepared wide-angle platform and a pronounced bulb. The chief raw material is the handy size water worn quartzite pebbles of light colour which are usually found in the bed of the river. Very occasionally one comes across an implement made of sandstone although the whole area including the terraces and the river bed are virtually full with sandstone pebbles which are mostly derived from the neighbouring hills entirely composed of this rock.

Discussion

In the Seminar on Prehistory and Protohistory in India, held at Deccan College, Poona during the last week of May 1964, quite an interesting discussion continued for a fair length of time on the topic 'Is Sohan a Culture?'. The author, as a participant in this topic had the privilege of expressing his views on the problem which were mainly based upon his recent field data.

The convener of this topic initiated the discussion with a remark that, 'A culture should be the sum total of more than one industry or a group of techniques set in an evolving socio-material matrix. The 'Sohan Culture' on this count, would seem to fall short of the definitional scope and would, at best, seem to be an industry displaying the rise, perfection and degeneration of the 'prepared platform technique'.[7] Our knowledge regarding the lithic industries of north-western India, specially the western Punjab—the type area of the Sohan culture, is mainly based upon the work done by De Terra and Paterson in 1935. Very few among the present generation of Indian prehistorians have so far been able to visit the sites or handle a fairly representative collection of those artifacts discovered by De Terra and Paterson over which the whole edifice of the Sohan culture rests. Therefore, it is quite but natural for some of us to get involved in some controversy or other like, 'Is the Soan a Flake-Industry?'[8], or is Sohan 'an industry displaying the rise, perfection and degeneration of the prepared platform technique'.[9] We shall presently discuss the latter problem on the basis of the data collected from East Punjab by Sen,[10] Lal[11] and the present author. These workers have brought out ample evidence regarding a pebble-tool culture in East Punjab which has been accepted as an extension of the Stone Age Culture complex of the Sohan valley and the Potwar region, now in West Pakistan.

7. Soundara Rajan, K. V., 'Is Soan a Culture', *Seminar on Prehistory and Protohistory in India,* Deccan College, Poona, 25th May 1964.
8. Sankalia, H. D., 'Is the Soan a Flake Industry?', *Journal of the Asiatic Society, Science,* Vol. XXII, No. 2, 1957, p. 161.
9. Soundara Rajan, K. V., *op. cit.*
10. Sen, D., *op. cit.*
11. Lal, B. B., *op. cit.*

The very existence of the Sohanian, right from its beginning (Early Sohan), as a separate lithic trait rests upon the idea of a typical pebble-tool tradition which, as is now being gradually accepted, represents a sub-stratum in the evolution of all lithic techniques. An wide-spread currency of these pebble-tools has been traced in many places of the Old World where these are considered as "ancestral both to the Chelles-Acheul handaxe tradition and the chopper-chopping tool complex".[12] Like the Oldowan, the Early Sohan (not emphasising over the date) contains quite a few flakes. As a natural accompaniment flakes are inevitable in any lithic industry. In an industry of earliest type, like the Oldowan of East Africa or the Sohanian of the Punjab, hardly any distinction can be brought out in terms of preferential use between a suitably sharp flake and a split pebble with a rough edge. At this stage the flakes being too basic in technique, manifested in the Bed I industry at Olduvai Gorge,[13] provide little evidence for a trend later to be developed into Clactonian or Levalloisian. On the other hand, the care with which the pebble choppers are made suggest their dominant role in this industry, whereas the flakes may be nothing but the waste-products occasionally used when found suitable. Considering the Early Sohan industry in this context one questions the relevance of tracing a Levalloisian or Proto-Levalloisian trend in it. Taking away from their proper contexts the Levalloisian or the Clactonian, as separate technological traits, will seem non-existent because as has been said before flakes of some type or other are bound to occur in any lithic industry. In case it is still believed that the flakes in the older pebble-tool cultures represent a separate lithic tradition parallel to that of the chopper-chopping complex, then the origin of the flake cultures like the Levalloisian and the Clactonian will have to be traced from the Oldowan, Sohanian and other similar pebble tool cultures.

On the basis of the data recently collected from the Dehragopipur excavation and the Kangra valley explorations in East Punjab we find the pebble choppers are much more in strength than the flakes in the collection of Early Sohan group of artifacts. While there is a marked tendency towards the refinement in the skill of flaking among the choppers, the flakes remain monotonously crude. In addition to this, hardly a flake has been fashioned into a regular tool by secondery retouch etc., which could have given us a precise knowledge about the role of the flakes in this industry. In fact it is very hard to draw a line between the flakes intentionally made and those discarded while preparing a pebble chopper. To be precise, the thirty and odd flakes among one hundred and twelve artifacts recovered from excavation show this feature which I believe is quite convincing; at least more trustworthy than the inferences drawn from materials found in explorations where there is a likelihood of error due

12. CLARK J. D., 'The Problem of the Pebble Cultures', *Atti del VI Congresso Internazionale delle Scienze Preistoriche e Protostoriche - Vol. I Relazioni generali*, Roma, p. 270.
13. *Ibid.* p. 268.

to the selective picking of the explorer. Therefore, at this stage at least there is no evidence to separate the flakes from the pebble choppers in order to bring out the origin of a flake culture which later on developed in Levalloisian lines.

Two more lithic industries of East Punjab, one in the Sirsa valley[14] and the other in the Banganga valley,[15] have been brought to light which on the typo-technological grounds present many advanced features than the Early Sohan. The industry from the Sirsa valley contains prepared flakes, thick blades, small side-scrapers, incipient borers and bifacially flaked fine discoids along with a fair proportion of pebble choppers. The choppers are smaller and neater than those found in the Beas-Banganga valley and the general technique is of much high standard as evidenced from well-controlled flake scars, clear out line and sharp well-defined working edges. One specimen which needs special mention is a big side-scraper on a flake of a big quartzite pebble (Text Fig. 20). It has the shape of a peariform handaxe and the technique is as good as that of any Acheulian artifact. In spite of these advanced features this specimen still is essentially a pebble tool which retains a big pebble cortex and shows unifacial flaking from the edge upward confined to one side only,—a typical characteristic of the chopper-chopping tool industry. It is quite remarkable that despite so many advanced technical features of this industry the pebble element still persists and the chopper-scraper typology continues to form the main bulk of the tool outfit. This fact coupled with the total absence of handaxes and cleavers provides the necessary basis for us to think the 'Sohanian as a separate culture' which probably never entered into the main trend of the lithic evolution in the rest of the subcontinent. Whether this industry in the Sirsa valley is called as Late Sohan or some thing else, its origin and development from the earlier pebble-tool culture can hardly be questioned. Thus the alleged shortcomings of the Sohanian as a culture pointed out by SOUNDARA RAJAN as "A culture should be the sum total of more than one industry or a group of techniques . . . etc.,"[16] do not stand over valid grounds. Incidentally it may also be pointed out that the poor standard of the small scrapers and the incipient borers fashioned out of the prepared flakes does not provide a very convincing basis for separating the prepared flake technique from the basic pebble-tool trend. We shall presently discuss the characters of the small flake industry found at Ror, in which prepared flakes are more numerous than any other type of artifacts but very few of the implements retouched and used seem to have been made out of them.

The flake industry at Ror is not only interesting because it is being reported for the first time but it has some very peculiar features which are quite intriguing.

14. Discovered by Olaf PRUFER, described by SEN (*op. cit.* 1955) and the present author (MOHAPATRA, G. C., *op. cit.* 1962).

15. Small flake industry of chert found at Ror.

16. SOUNDARA RAJAN, K. V., *op. cit.*

Its chief raw material, a type of greyish chert, provides a sharp contrast with the coarse grain quartzites mainly used in the Sirsa Valley industry. The source of this siliceous raw material could not be traced out anywhere near Ror or Haripur-Guler. Pebbles of chert are occasionally found in the bed of the Banganga the out crops of which probably lie in the lime stone areas situated in the upper reaches of the river, south-east of Dharamsala. Quartzite pebbles, available in fair quantities and extensively used for the local Early Sohan industry probably had no appeal for the authors of this industry. However this fastidiousness in selection of the raw material in spite of its rarity is a point worth noticing. The polished celts and half of a ring-stone found in the same area are made out of a different raw material, a sort of softish grey shale. No evidence could be found any where nearby regarding the local manufacture of these celts.

Another peculiar character of this industry is, although it contains quite a large number of prepared flakes hardly one of them shows any retouch or secondary flaking. In spite of a very liberal sorting of its regular tools the industry was found to contain only two types i.e., the side-scraper and the incipient borer. Unlike the points, burins or some special type scrapers which are quite indicative of the technical skill of an industry, these side-scrapers and rough borers hardly convey anything as regards the general technique. The role of these prepared flakes in this industry is further pushed into background when our statistical analysis showed majority of the side-scrapers to have been made out of small pebbles with almost half of the rounded pebble cortex intact. In fact some of these side-scrapers almost look like a miniature Early Sohan pebble choppers. Therefore, the exact role played by these prepared flakes found in such a large number in this industry is not yet quite clear.

The other point of interest in this industry is the persistence of the pebble tradition. As has been just pointed out, the only type of implement which shows secondary flaking, retouch and marks of use is the side-scraper mostly based on pebbles. There are quite a large number of cores and flakes which show pebble cortex. Although at this stage of our knowledge it is neither possible nor desirable to claim any firm conclusion, still one can safely accept this industry as another regional manifestation of the Sohanian pebble-tool tradition at its very late stage. Probably, on the basis of typology and technique, the Sirsa valley industry can be placed in between this and the Early Sohan industry of East Punjab.

The Late Sohan industries of the Western Punjab being mixed with an Acheulian complex have been technically described by SEN as 'Soan-Levallois-Acheulian',[17] which very adequately give expression to the various elements in it. In a similar fashion the industry at Ror may be defined as 'Sohan-Levalloisian', minus the Acheulian element. By attaching the term Sohan to this dominantly prepared flake (Levalloisian) industry, the author is in full agreement with SEN

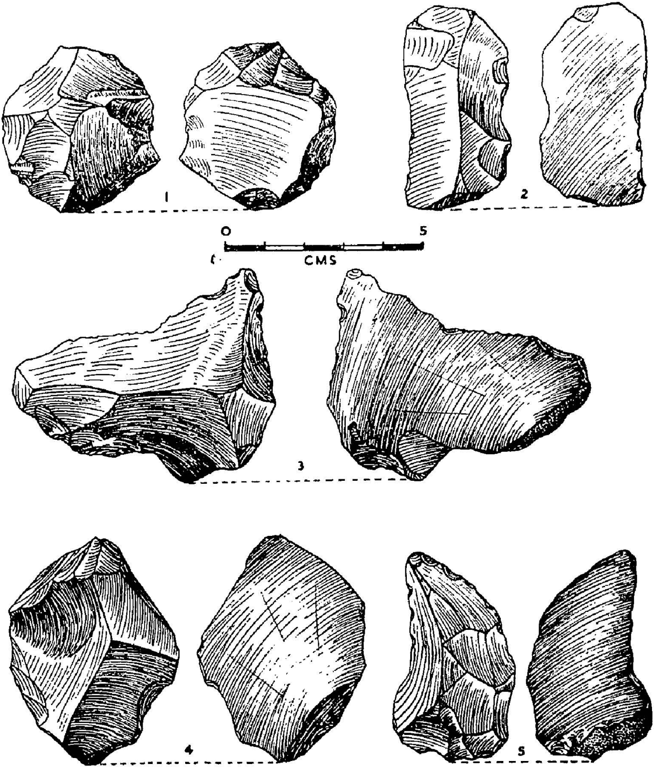
17. SEN D., 'The Criteria of The Sohan Culture', *Seminar in Indian Prehistory and Protohistory*, Deccan College, Poona, 25th May 1964. p. 6.

to the effect that, it is the typical trend of the Sohanian which persisted all through out; evolving within a well defined area of its own and gradually absorbing new elements like the prepared platform technique etc., through the passage of time. As a separate culture the Sohanian had clear beginning and in matured stages it is manifested through several industries and techniques. Therefore, it will perhaps be a gross under-estimate to consider the Sohanian as only an industry based on 'prepared platform technique', its rise, degeneration etc.,—a remark which almost deprives the Sohanian from its independent status as a culture.

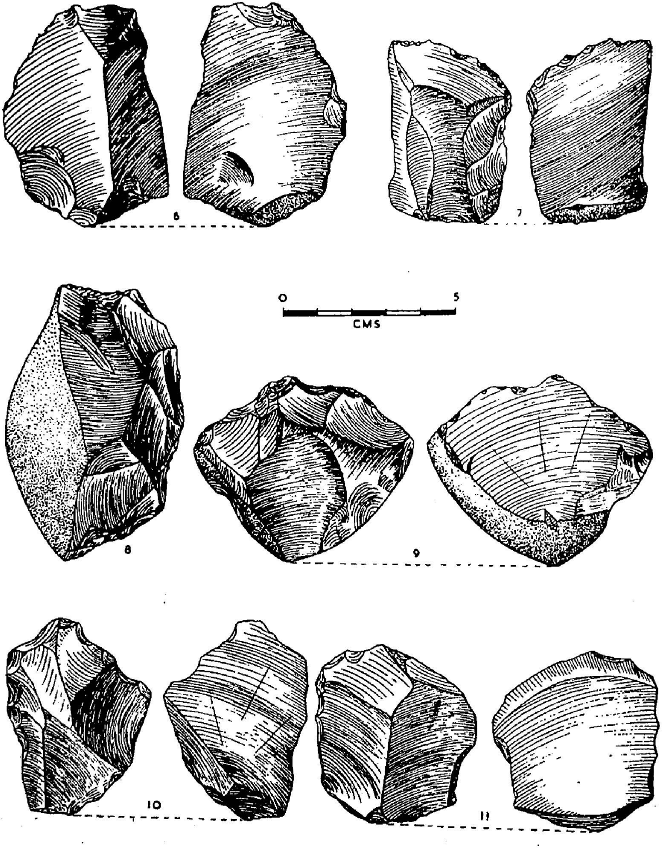
So far no evidence has been found regarding an Abbevillio-Acheulian industry in the East Punjab. Not a single *coup-de-poing* has been found from this part nor there is any feasible evidence in the Early Sohan industry which may indicate an autochthonous growth of the bifaces from the pebble choppers like that at Olduvai Gorge. In our collection of over five hundred Early Sohan artifacts there is hardly a single specimen which, even faintly, recalls the technique of a *coup-de-poing*.

Our knowledge regarding the lithic cultures of the Eastern Punjab was so far very meagre. Due to the field investigations sponsored under the CSIR scheme we have not only been able to add quite a number of names to the already existing list of Early Sohan localities in East Punjab, but also succeeded in finding two other later industries i.e., the small flake and polished celt industries at Ror in the Banganga valley. Both these industries were so far unknown and particularly the absence of the polished celts (Neolithic) in the greater part of northwestern India (undivided Punjab) was difficult to explain with reference to the Neolithic sites at Burzahom etc., in the Kashmir valley. Therefore, KRISHNASWAMI had come forward with a suggestion as, "Can it be that the neolithic phase of Kile II of Kile Gul Mohammed in Baluchistan, assigned to the fourth millennium B.C., inspired the loessic neolithic industry of Kashmir? Between Baluchistan and Kashmir, the only neolithic pointed-butt axe comes from a site on the banks of the Indus opposite Shadipur near Attock. The rest of the celts, found at Harappa and Mohenjo-daro and at Nal in Baluchistan, definitely occur in Metal Age levels".[18] The absence of a proper link between the well-developed Neolithic industries of eastern and southern India, and that at Burzahom, which was solely due to the big vacant area comprising the whole of the Punjab, Rajputana and the upper part of the Yamuna-Ganges doab (roughly around Delhi), had forced us, as KRISHNASWAMI has suggested, to trace the Burzahom Neolithic culture from that of Baluchistan. Further field investigations, preferably through excavations of habitation sites of this neolithic industry, in Kangra valley can only help us to ascertain whether these celts found at Ror and Dehragopipur mark the route of penetration of the peninsular neolithic culture into the Kashmir valley or otherwise signify the southward extension of the Burzahom culture itself.

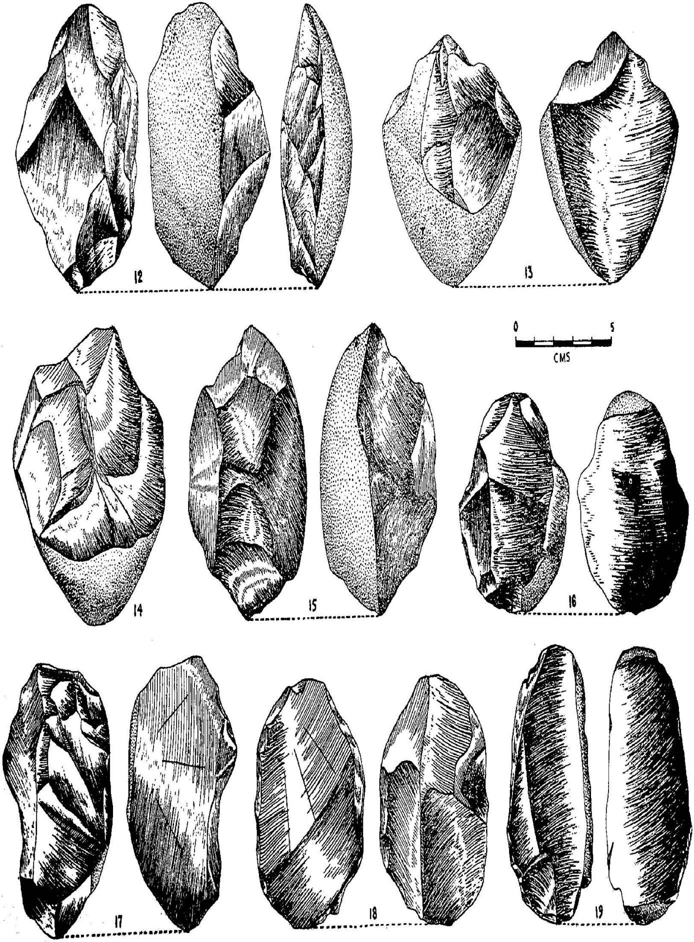
18. KRISHNASWAMI, V. D., 'The Neolithic Pattern of India', *Ancient India*, No. 16, 1960, p. 63.



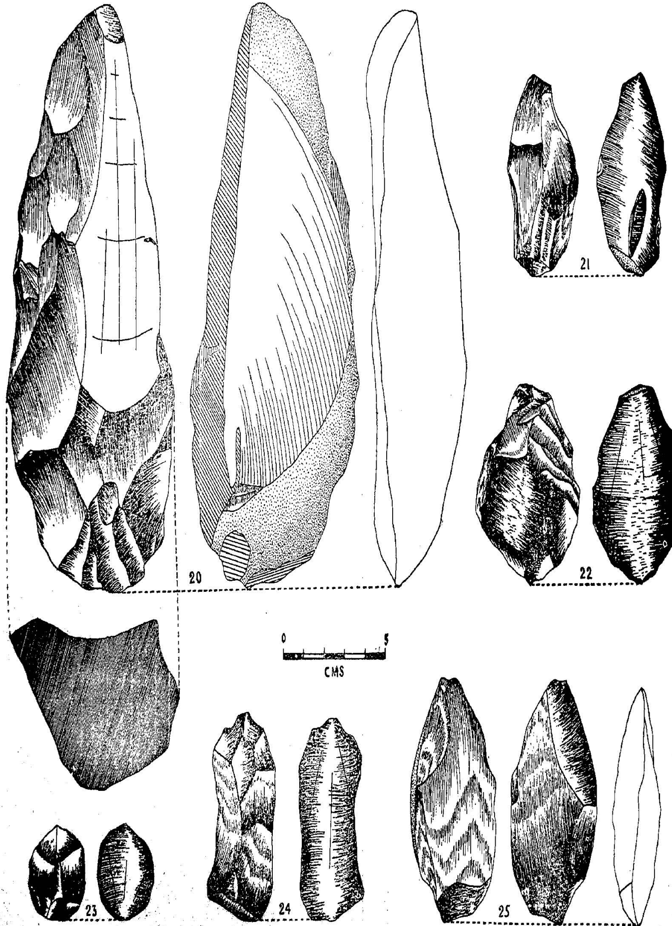
Line Drawing of small Flake-Tools 1-5 from Kangra District.



Line Drawings of small Flake-Tools 6-11, from Kangra District.



Implements from Susa Valley, Ambala District.



Implements from Susa Valley, Ambala District.

Short Description of Implements Illustrated In Text Figures:—

Banganga valley, Kangra District—

Text Fig. 1.

38 x 35 x 16 mm. Chert. A tiny tortoise core. Slightly rolled and fully patinated. (Pl. IV, No. 13).

Text Fig. 2.

47 x 25 x 18 mm. Chert. Bladdish flake with a triangular cross-section. Slightly rolled and fully patinated (Pl. IV, No. 10).

Text Fig. 3.

67 x 52 x 6 mm. Cherty quartzite. Incipient borer on an irregular flake. The borer tip is sturdy with marks of use. Slightly rolled but no patination. (Pl. IV, No. 14).

Text Fig. 4.

55 x 44 x 8 mm. Chert. Flake with plain wide-angle platform and a pronounced bulb. Slightly rolled and patinated.

Text Fig. 5.

50 x 28 x 15 mm. Chert. Incipient borer on a flake with cortexed wide-angle platform. Rolled and thickly patinated.

Text Fig. 6.

61 x 45 x 18 mm. Flinty Chert. Flake with wide-angle cortexed platform, pronounced bulb and some recent fractures on the edges. Almost fresh but patinated.

Text Fig. 7.

48 x 34 x 13 mm. Chert. Bladdish flake with cortexed platform and some secondary flaking on one side. Slightly rolled and highly patinated. (Pl. IV, No. 9).

Text Fig. 8.

72 x 51 x 33 mm. Chert. Unifacial pebble-scraper. Slightly rolled.

Text Fig. 9.

63 x 54 x 25 mm. Chert. Side-scraper on a split pebble. Slightly rolled and patinated.

Text Fig. 10.

55 x 42 x 18 mm. Chert. Flake with a wide-angle platform showing two facets. Rolled and highly patinated. (Pl. IV, No. 11).

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Text Fig. 11.
49 x 47 x 7 mm. Chert. Flake with a right-angle platform and pronounced bulb. Slight indication of retouches on one side. Slightly rolled and fully patinated. (Pl. IV, No. 12).

Sirsa Valley, Ambala District—

Text Fig. 12.
74 x 65 x 36 mm. Quartzite. Bifacial pebble-chopper. Fresh.

Text Fig. 13.
75 x 64 x 38 mm. Quartzite. Unifacial chopper on a split pebble. Slightly rolled.

Text Fig. 14.
78 x 74 x 52 mm. Quartzite. Unifacial pebble chopper. Fresh.

Text Fig. 15.
77 x 65 x 51 mm. Quartzite. Pebble core. Fresh.

Text Fig. 16.
59 x 58 x 16 mm. Quartzite. Negative flake with a cortexed inclining platform. Slightly weathered.

Text Fig. 17.
70 x 55 x 20 mm. Quartzite. Side-flake with cortexed platform of about 90°. Struck from a prepared core. Fresh.

Text Fig. 18.
65 x 63 x 17 mm. Quartzite. Discoid (scraper) on a flake. Both surfaces show very flat flakes scars and marginal retouches. Very thin biconvex across section. Slightly rolled.

Text Fig. 19.
72 x 47 x 15 mm. Quartzite. Bladdish flake with cortexed platform at a right angle. Almost fresh.

Text Fig. 20.
158 x 86 x 40 mm. Quartzite. Side-scraper on a pebble-flake splitted into halves. Fresh.

Text Fig. 21.
55 x 37 x 15 mm. Greenish quartzite. Small end-flake with a cortexed platform of nearly 90°. Fresh.

Text Fig. 22.
55 x 50 x 14 mm. Quartzite. Flake with a cortexed platform of about 90°. Fresh.

Text Fig. 23.

29 x 26 x 10 mm. Milky quartzite. Small flake with a plain right-angle platform. Slightly rolled.

Text Fig. 24.

55 x 31 x 12 mm. Quartzite. Blade-flake with a triangular cross section. Slightly rolled.

Text Fig. 25.

66 x 46 x 25 mm. Quartzite. A core from which flakes have been detached from sides. One side shows a patch of pebble cortex which is the platform. No retouches on the margins although one edge is quite straight and sharp. Slightly rolled.

The author wishes to thank Shri M. C. Mankoo and Shri G. J. Saini for their help in preparing the drawings of these text figures.

APPENDIX

After this report was despatched for publication another exploration trip was made to the valley of the Beas in the months of November-December 1964. This time the aim was to explore those places which are likely to get inundated by the waters of the Beas Dam, being constructed at Talwara. As a result of this exploration Sohanian pebble-tool sites were found at Talwara, Dadasiba and Baroli. The last place also yielded a polished stone celt and a small flake.

Talwara

Situated on the right bank of the Beas, Talwara is about sixteen miles from the Mukerian railway station. This is the place where the Soan (E. Punjab) meets the Beas. The Dam is being constructed only to harness the waters of the Beas, a little above the confluence. There are two terraces in the neighbourhood. The upper terrace which is unimplementiferous, is highly dissected presenting an appearance of a series of isolated hillocks of big boulders and pebbles. The lower terrace over which the Talwara township is situated is flat, alluvial, about half a mile broad which runs lengthwise by the side of the river for several miles. It is nearly nine meters higher than the present water level. A section exposed near the township shows about five meters of boulders and gravels capped by a layer of three meter thick red silt. From an unploughed part of this terrace five pebble-choppers were collected.

Dadasiba

About sixteen miles upstream of Talwara this place is also situated on the left bank of the river. From here Dehragopipur is another twelve miles upstream. There are a number of small and big terraces in the neighbourhood of Dadasiba which have been shown as different contour lines in Survey of India topo map No. 53 A/1. The terrace which has been shown as 1500 ft., contour line in this map is the most extensive which yielded a fairly good number of pebble artifacts near the village Batwara. This village and Dadasiba are situated on the two opposite banks of a monsoonal hill stream called the Dada Khad. Like Dehra, the implements found at Batwara come from the ploughed fields which are alluvial up to a considerable depth.

Baroli

This place is situated on the right bank of the Beas opposite to Nadaun Bazar. It is sixteen miles upstream of Dehragopipur *via* Jwalamukhi. There are three distinctly observable terraces on the right bank of the Beas near this village. The top terrace over which the Katoi village is situated is above the 1750 ft. contour line (topo sheet No. 53 A/5). The second is about a hundred feet lower and the third is adjecent to the river over which the Baroli village and a Forest Department Rest House is situated. Near the village Marial, a vertical section of about five meters of the top terrace is exposed. It is entirely composed of highly weathered silt of deep red colour which is being dug up by the potters for making earthen pots. At the foot of this cliff a polished stone celt and a small flake of a silicious rock were found lying on the surface. The next terrace (T.II) is very extensive which yielded many pebble artifacts. From the third terrace, adjoining the river, similar artifacts were collected from the ploughed fields near the Rest House and the Baroli Bazar.

Dehragopipur

Apart from revisiting the previously excavated sites of Dehragopipur and making more collection of implements, in this season explorations were also carried out on the right bank of the Beas about two miles upstream of Dehra Bazar. The terrace adjoining the river yielded pebble tools around the village Sanot Khas which is opposite to the village Sunnet on the other side of the river.

Haripur-Guler

In order to observe and exactly demarcate the extension of the chert flake and the polished stone celt industry, exploration was conducted from Haripur

Bazar to Haler-Anor and Khilru passing through the terraces three, four, five and six. Most peculiarly excepting the sites already mentioned as the places from which these industries were originally found, nowhere else the flake tools or the celts occur. In the lower terraces the Sohanian pebble choppers gradually disappear. The only exception being the appearence of two chert flakes by the side of a foot-path on T. VI between Khilru and Panjbar (Gurudwara). Work in this season further confirms the fact that, the main concentration of these two industries is confined to a patch of about five acres of land which is monotonously flat and intensively cultivated. In fact this patch of land is so rich for us that this season again about half a dozen of celts and about fifty chert-flakes more were collected from the surface without much effort.

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